



DEPARTMENT OF COMMERCE

Bureau of Industry and Security

15 CFR Parts 740 and 774

[Docket No. 231117-0272]

RIN 0694-AJ32

Proposed Enhancements and Simplification of License Exception Strategic Trade

Authorization (STA)

AGENCY: Bureau of Industry and Security, Department of Commerce.

ACTION: Proposed rule.

SUMMARY: In this rulemaking, the Bureau of Industry and Security (BIS) proposes revising License Exception Strategic Trade Authorization (STA) under the Export Administration Regulations (EAR). The purpose of these changes is to encourage additional use of License Exception STA for ally and partner countries. BIS proposes specific revisions to License Exception STA and includes questions for public comment to help BIS better understand impediments in using License Exception STA. This proposed rule is part of a broader effort announced today that will revise several categories of export licensing requirements and the availability of export license exceptions for key allied and partner countries, as well as for members of certain multilateral export control regimes.

DATES: Comments must be received by BIS no later than **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Comments on this rule may be submitted to the Federal rulemaking portal (www.regulations.gov). The regulations.gov ID for this rule is: BIS-2023-0019. Please refer to RIN 0694-AJ32 in all comments.

All filers using the portal should use the name of the person or entity submitting the comments as the name of their files, in accordance with the instructions below. Anyone

submitting business confidential information should clearly identify the business confidential portion at the time of submission, file a statement justifying nondisclosure and referring to the specific legal authority claimed, and provide a non-confidential version of the submission. For comments submitted electronically containing business confidential information, the file name of the business confidential version should begin with the characters “BC.” Any page containing business confidential information must be clearly marked “BUSINESS CONFIDENTIAL” on the top of that page. The corresponding non-confidential version of those comments must be clearly marked “PUBLIC.” The file name of the non-confidential version should begin with the character “P.” Any submissions with file names that do not begin with either a “BC” or a “P” will be assumed to be public and will be made publicly available through <https://www.regulations.gov>. Commenters submitting business confidential information are encouraged to scan a hard copy of the non-confidential version to create an image of the file, rather than submitting a digital copy with redactions applied, to avoid inadvertent redaction errors which could enable the public to read business confidential information.

FOR FURTHER INFORMATION CONTACT: For questions on this proposed rule, contact Timothy Mooney, Regulatory Policy Division, Office of Exporter Services, Bureau of Industry and Security, U.S. Department of Commerce at 202-482-2440 or by e-mail: RPD2@bis.doc.gov, please include “RIN: 0694-AJ32” in the subject line.

SUPPLEMENTARY INFORMATION:

I. Background

In this proposed rule, the Bureau of Industry and Security (BIS) describes potential revisions to License Exception Strategic Trade Authorization (STA) under the Export Administration Regulations (EAR). The purpose of these changes is to encourage additional use of License Exception STA for ally and partner countries. This rule proposes changes that would: (1) clarify that License Exception STA is not a list-based license exception; (2) add text to make it more explicit that License Exception STA is eligible for deemed export and deemed reexports; (3)

exclude deemed exports and deemed reexports from the requirement to have been listed on an approved license or other approval for “600 series” technology; (4) adopt a simpler and consistent approach to identify ECCNs eligible for License Exception STA; and (5) remove the limitation on the use of License Exception APR for reexports between and among certain partner and ally countries to reflect their close coordination with the United States on export controls.

This proposed rule also includes seven questions for public comment to help BIS better understand why License STA is being underutilized by exporters, reexporters, and transferors. BIS also requests comments on whether STA eligibility should be expanded or restricted for specific items, including for specific ECCNs and welcomes comments on additional measures that could further facilitate trade under License Exception STA with partner and ally countries.

This rule includes proposed changes to License Exception STA eligibility for ECCNs 1E001 and 2E003.f, which were previously proposed in the proposed rule *“Clarifications of Availability and Expansion of Restrictions on Availability of License Exception Strategic Trade Authorization Under the Export Administration Regulations”* (October 2021 rule) (see 86 FR 58615 (October 22, 2021)). Because this rule is addressing License Exception STA more broadly, such as how items excluded from License Exception STA will be identified and the passage of time since 2021, BIS is re-proposing these restrictions on the STA eligibility for ECCNs 1E001 and 2E003.f. This action will allow for public comment on these proposed changes to License Exception STA eligibility to help to better inform the current Administration’s review of License Exception STA eligibility for these two ECCNs. See Section VII.B of this rule for additional background on these proposed changes. BIS encourages parties that may have commented on the October 22 rule to review these proposed changes to ECCN 1E001 and 2E003.f, along with any other interested parties.

Liberalizing Controls for Allies and Partners

Historically, the United States has relied on deep connections with its allies and partners to protect its vital national security and foreign policy interests. In particular, the United States

acts in close cooperation with its allies and partners to bring together the international community to address military aggression, threats to sovereignty, and human rights abuses around the world. This is especially true in the context of export controls, in which multilateral and plurilateral controls are typically the most effective path toward accomplishing our national security and foreign policy objectives.

In remarks made on February 4, 2021, regarding America's place in the world, President Biden noted that America's alliances are some of our greatest assets and that leading with diplomacy means standing shoulder to shoulder with and working closely with our allies and key partners, thereby protecting the world against nefarious actors. At that time, President Biden highlighted the fact that the United States would be "more effective in dealing with Russia when we work in coalition and coordination with other like-minded partners."

(<https://www.whitehouse.gov/briefing-room/speeches-remarks/2021/02/04/remarks-by-president-biden-on-americas-place-in-the-world/>). Consistent with this direction, a year later following Russia's unjustifiable further invasion of Ukraine and Belarus' complicity in that invasion, the United States led formation of and continued alignment within the Global Export Controls Coalition (GECC), now comprising the United States and 38 other global economies. BIS's export controls on Russia and Belarus have been more effective because they have been imposed and maintained in coordination with U.S. allies and partners. At the same time, in addition to the GECC, BIS has forged deeper ally and partner country relationships through a series of bilateral and multilateral export controls dialogues, including under the auspices of the U.S.-European Union Trade and Technology Council (TTC) and the U.S.-Japan Commercial and Industrial Partnership (JUCIP).

The proposed changes with this rule and two other ally and partner rules published today are part of a broad effort to liberalize controls for allies and partner countries under the EAR (15 CFR parts 730-774). Together, these rules will ease several categories of export licensing

requirements and increase the availability of export license exceptions for key allied and partner countries, as well as members of certain multilateral export control regimes.

License Exception STA History

License Exception STA was added to the EAR on June 16, 2011 (76 FR 35287) as one of the first actions taken under the Export Control Reform (ECR) Initiative. This license exception was intended to facilitate trade and military interoperability with our closest allies and partners by streamlining the controls under the EAR applicable for certain items destined for export control partner and ally countries. Through two authorizing paragraphs (§ 740.20(c)(1) and (2)), License Exception STA authorizes exports, reexports, and transfers (in-country), including deemed exports and deemed reexports for certain items. Paragraph (c)(1) authorization is applicable to six reasons for control (national security (NS); chemical or biological weapons (CB); nuclear nonproliferation (NP); regional stability (RS); crime control (CC), and/or significant items (SI)) for countries identified in Country Group A:5. Paragraph (c)(2) authorization is available to overcome national security (NS) controls for certain ECCNs. As with all EAR license exceptions, certain terms and conditions must be met to use License Exception STA. In addition, entities that use License Exception STA must confirm that none of the general restrictions on the use of license exceptions under § 740.2 applies.

Since 2011, BIS has updated License Exception STA to clarify certain requirements. For example, a November 11, 2017, final rule (82 FR 50511) added various notes to License Exception STA to clarify the intent of certain provisions, *e.g.*, the ‘completing the chain’ concept for “600 series” items, clarifying foreign governments are not required to provide a prior consignee statement, and clarifying how License Exception STA relates to transfers (in-country). These changes helped with public understanding and encouraged some additional usage of License Exception STA for ally and partner country transactions.

BIS has determined that amending License Exception STA to make the requirements simpler where possible, while still protecting U.S. national security and foreign policy interests, would

make License Exception STA more beneficial for key allied and partner countries. Moreover, it is appropriate to reevaluate the effectiveness of License Exception STA and determine how it may be improved to better achieve its original objectives, as well as to better reflect the current export control environment (*e.g.*, taking into account the significant amount of coordination between destinations identified in Country Group A:5 in supplement no. 1 to part 740 (Country Groups) and in supplement no. 3 to part 746 (Countries Excluded from Certain License Requirements of §§ 746.6, 746.7, and 746.8)).

BIS is publishing this rule as a proposed rule to receive comments on the proposed changes and to solicit public comments on general questions about License Exception STA. BIS particularly seeks input on whether any aspect of License Exception STA discourages use of the exception. License Exception STA was intended to be used in almost all cases when available, and BIS believed at the time License Exception STA was added to the EAR that it would be used in almost all cases when available. The use of License Exception STA has grown since 2011, but it remains persistently underutilized. In fiscal year (FY) 2022, 10% of all license applications reviewed by BIS were for transactions eligible for license exception STA. With respect to “600 series” munitions items, in FY 2022, 26% of license applications BIS processed were for transactions that were eligible for license exception STA.

Advantages of License Exception STA over a BIS license

BIS has set out various evaluation criteria below to compare License Exception STA and BIS licenses. BIS has emphasized these points since 2011 in explaining to exporters, reexporters, and transferors the significant advantages to using License Exception STA compared to using a BIS license, with the one exception that License Exception STA does not allow for subsequent use of License Exception Additional Permissive Reexports (APR) under § 740.16(a) or (b). BIS also welcomes comments in response to this proposed rule for commenters to include any additional evaluation criteria that may be relevant when determining whether to use License Exception STA or a BIS license, in particular if those additional evaluation criteria may be why

some exporters, reexporters, or transferors prefer using BIS licenses over License Exception STA when it is available.

Evaluation criteria	License Exception STA	BIS license
<i>Quantity authorized</i>	No limitation on quantity	Limited to the quantity specified on the license.
<i>Dollar value authorized</i>	No limitation on the dollar value	Dollar value is limited to the dollar value specified on the license and may only exceed that amount when it is within the shipping tolerance provisions under § 750.11, which generally allow for the total dollar value stated on that license to be exceeded by up to 10% of the dollar value.
<i>Time needed to obtain the authorization</i>	License Exception STA is a written authorization in the EAR, so provided you meet the terms and conditions, License Exception STA could be used the same day you determine an authorization is needed.	Applying for a BIS license takes time. In certain cases, an applicant may be able to request expedited review (BIS licenses do not generally require a purchase order), but in most cases the review process will take on average around 40 calendar days from the time the license application is submitted until a final disposition is received from BIS, with processing times for some applications being shorter and some taking much longer.
<i>U.S. Government end-use checks</i>	Consistent with § 734.11, the U.S. Government may request to conduct an end-use check for items received under License Exception STA, regardless of whether or not the certification requirement in § 740.20(d)(2)(viii) applies to the specific STA transaction. ¹	Consistent with § 734.11, the U.S. Government may request to conduct an end-use check for items received under a BIS license. These are done prior to a consignee receiving the items as a pre-license check or after the items are received as a post-shipment verification.
<i>Subsequent transfers (in-country)</i>	An item received under License Exception STA may be transferred (in-country) without requiring an EAR authorization, provided there	An item received under a BIS license may only be transferred (in-country) as authorized under the BIS license. Any transfer (in-

¹ Note that also consistent with § 734.11, the U.S. Government may request to conduct an end-use check for items received under any other BIS license exception or No License Required (NLR) designated shipments.

	are no part 744 end-use or end-user license requirements. This concept also applies to “600 series” items, but the ‘completing the chain concept’ as specified in Note 1 to paragraphs (b)(2) and (b)(3) (which this rule would redesignate as Note 1 to paragraph (b)(3)) of License Exception STA would need to be completed for a “600 series” item received under License Exception STA.	country), such as to an end user not identified on the license, would require a new license or a separate EAR authorization. This is a significant disadvantage to using a BIS license compared to using License Exception STA. ²
<i>Restrictions on subsequent reexports</i>	Commodities shipped pursuant to License Exception STA may not subsequently be reexported pursuant to paragraphs (a) or (b) of License Exception APR under § 740.16(a) or (b). ³	Unless limited by a condition on the license regarding the use of License Exception APR, a BIS license does not have limitations on the use of License Exception APR under § 740.16(a) or (b).

II. Clarification that License Exception STA is not a list-based license exception, adding additional compliance guidance on steps to determine if ECCN is excluded

In the introductory text to License Exception STA in § 740.20, this rule proposes revising the first sentence and adding two new sentences at the end. The first sentence would specify that License Exception STA is not a list-based license exception. Rather, it is a transaction-based license exception. A list-based license exception requires reviewing the License Exceptions section in an ECCN and seeing an affirmative statement that the list-based license exception is available. License Exception STA does not appear under the License Exceptions section of any

² For example, an exporter is exporting a “600 series” item to a defense contractor in the U.K. and knows there are three additional defense contractors involved in the manufacturing process prior to the finished item being provided to the U.S. military. This could be authorized under a BIS license instead of using License Exception STA, but if an additional U.K. defense contractor needs to be added that was not contemplated at the time the license was approved, a new license or other EAR license exception would be needed. For “600 series” items received under License Exception STA, as noted in the previous column, no authorization would be required to transfer (in-country) to the new entity involved in the manufacturing process, provided the ‘completing the chain’ concept is still followed for the “600 series” item. For other items received under License Exception STA, there is no ‘completing the chain’ concept, so License Exception STA is even easier to use for transfers (in-country).

³ This has historically been one advantage to using a BIS license instead of License Exception STA. Today’s proposed rule proposes narrowing the scope of the License Exception STA restriction on use of License Exception APR under § 740.16(a) or (b) for destinations identified in both Country Group A:5 and in supplement no. 3 to part 746 to put License Exception STA on a more equal playing field with BIS licenses in this respect.

ECCN because it is not a list-based license exception; therefore, this additional step is not required for determining whether License Exception STA is available. The sentence this rule proposes to add will make this point clear for exporters, reexporters, and transferors. BIS also welcomes comments on whether it would be more beneficial to turn License Exception STA into a list-based license exception.

Certain information from an ECCN is used to determine whether License Exception STA may be used. For example, the reason(s) for control of an ECCN is (are) needed for determining whether an item classified under an ECCN may be authorized under License Exception STA. In addition, 142 ECCNs contain a Special Conditions STA section, which in most cases excludes the use of License Exception STA for an entire ECCN or portions of an ECCN for destinations identified in Country Group A:6. In 25 of those 142 Special Conditions for STA sections, there are exclusions for entire ECCNs or portions of an ECCN for destinations in Country Groups A:5 and A:6 – meaning License Exception STA is not available in any case to authorize those items. As described under section V.A, this proposed rule proposes various changes to the Special Conditions for STA section in the ECCNs to adopt a simpler and consistent approach for excluding ECCNs or certain items under ECCNs from License Exception STA, along with proposing conforming changes to § 740.20(b)(2).

III. Clarifying License Exception STA is eligible for deemed exports and deemed reexports and excluding requirement for recipient to have been approved on a prior U.S. government authorization.

A. Clarifying STA is available for deemed exports and deemed reexports.

Under the introductory text to § 740.20, this rule proposes revising the first sentence and adding a new second sentence to make it clear at the beginning of License Exception STA that the license exception may be used to authorize deemed exports and deemed reexports. BIS still receives questions from exporters, reexporters, and transferors on whether License Exception STA may be used to authorize deemed exports and deemed reexports, so this step would improve

public understanding. The current introductory text prior to these proposed changes uses the phrase “including releases within a single country of software source code and technology to foreign nationals,” which has the same meaning as deemed exports and deemed reexports, but to simplify the text, this rule proposes removing that text and adding in its place the terms deemed exports and deemed reexports. The second new sentence this rule would add to the introductory text specifies that for the paragraph (d) requirements, only paragraph (d)(4) is applicable for deemed exports and deemed reexports. Paragraph (d)(4) already specifies this relationship with paragraphs (d)(1) through (3), but this is still a common question that BIS receives on the use of License Exception STA.

B. Addition of a general statement to part 740 about the use of EAR license exceptions for deemed exports and deemed reexports.

In § 740.1 Introduction, this rule proposes adding one sentence to the end of paragraph (a) (Scope) to clarify that any license exception authorizing exports and reexports of technology also authorizes deemed exports and deemed reexports, provided the terms and conditions for a release of technology under that license exception are met. This rule proposes this sentence to ensure that the scope of license exceptions also extends to deemed exports and deemed reexports provided the criteria are met. Certain EAR license exceptions are available for deemed exports and deemed reexports, such as License Exception Technology and software under restriction (TSR) under § 740.6, but do not include a specific reference to deemed exports and deemed reexports. BIS welcomes comments in response to the rule whether it would be better to include this proposed sentence in § 740.1 or to revise each of the applicable license exception sections in part 740 to add in a reference to deemed exports and deemed reexports.

C. Excluding deemed exports and deemed reexports from Note to paragraph (c)(1).

In § 740.20, this rule proposes adding one sentence to the end of the Note to paragraph (c)(1), to specify the note is not applicable to deemed exports or deemed reexports authorized under License Exception STA under § 740.20(c)(1). BIS originally added the Note to paragraph (c)(1)

to weed out potential front companies that may have tried to receive “600 series” items under License Exception STA under § 740.20(c)(1). The note to paragraph (c)(1) specified that License Exception STA under § 740.20(c)(1) may be used to authorize the export, reexport, or transfer (in-country) of “600 series” items only if the purchaser, intermediate consignee, ultimate consignee, and end user have previously been approved on a license or other approval and the note identifies the types of licenses or other approvals that are acceptable. For most exporters, reexporters, or transferors, this Note to paragraph (c)(1) has been easy to comply with and even when an exporter, reexporter, or transferor was not able to meet the terms of the note, that was easily addressed by applying for a license for that transaction. Then once the license was granted, the exporter, reexporter, or transferor would meet the terms of the Note to paragraph (c)(1) and could use License Exception STA going forward, provided the export, reexport, or transfer (in-country) met the other applicable terms and conditions for License Exception STA.

In the deemed export and deemed reexport context for the “600 series,” the application of the Note 1 to paragraph (c)(1) has brought about certain unexpected results. First, because the person releasing the “600 series” technology to the foreign national would be in a position to vet the person in most cases as part of the employment with the entity making the release, which may include requiring entry into a nondisclosure agreement, the concern with a foreign national being an unknown entity is significantly less compared to an entity on the other side of the world that will be receiving a “600 series” item. Second, although the entity making a deemed export or deemed reexport could also apply for a license if needed initially to address the Note to paragraph (c)(1), in most cases once going through the process of obtaining a deemed export license from BIS, the entity making the deemed export or deemed reexport would likely simply rely on the BIS deemed export or deemed reexport license going forward instead of using License Exception STA. This would limit the usefulness of License Exception STA for authorizing “600 series” deemed exports and deemed reexports of technology and would not be warranted as a restriction in order to protect U.S. national security and foreign policy interests.

At least in part as a result of this restriction, in FY 2022, BIS approved over 60 deemed export or deemed reexport license applications for “600 series” that would otherwise have been eligible for license STA because the recipients were nationals of A:5 countries. For these reasons, this rule proposes adding a sentence to the end of the Note to paragraph (c)(1) to exclude deemed exports and deemed reexports from the scope of this note.

BIS has provided past regulatory guidance on this question, which does mitigate some concern about this Note 1 to paragraph (c)(1) discouraging the use of License Exception STA. To make all members of the public aware of this past guidance that BIS has provided to other deemed exporters and deemed reexporters, BIS includes that guidance here on the application of Note 1 to paragraph (c)(1). If the foreign person is a bona fide ‘permanent and regular employee’ of an entity that has previously been approved as a purchaser, intermediate consignee, ultimate consignee, or end user on a license or other approval, *i.e.*, Directorate of Defense Trade Controls (DDTC) Manufacturing License Agreement (MLA), Technical Assistance Agreement (TAA), Warehouse Distribution Agreement (WDA), or General Correspondence approval (GC) issued by BIS or DDTC at the U.S. Department of State, this would meet the requirement of the Note to paragraph (c)(1). For example, if a foreign national that is a bona fide “permanent and regular employee” of a European software company was meeting with a company in the U.S. and “600 series” technology or software source code was to be released, it would be sufficient for purposes of the Note to paragraph (c)(1), that the European software company met the scope of the Note to paragraph (c)(1) and this would extend to their bona fide “permanent and regular employee.” In addition, if the foreign national had previously been listed individually on a license or other approval, as noted above that would be the second route for meeting the scope of the Note to paragraph (c)(1) for that foreign national. Note that a foreign person being a bona fide “permanent and regular employee” of a U.S. entity that previously had been listed as an entity on a license or approval, such as an approved exporter, is not sufficient to meet the scope of the Note to paragraph (c)(1), because the concern in that scenario is with the bona fides of the foreign national and not

the U.S. entity. BIS does note that this guidance will no longer be necessary if the proposed change becomes final and effective. BIS encourages as a good compliance practice for entities using License Exception STA for deemed exports and deemed reexports to have measures in place to vet the foreign national, such as employment screening and the use of non-disclosure agreements. In addition, any deemed export or deemed reexport authorized under License Exception STA will need to comply with the requirements of paragraph (d)(4) (Requirements for releases of software source code or technology within a single country).

V. Simplification of limitations on use of License Exception STA under paragraph (b)(2) and Special Conditions for STA section in ECCNs.

A. Adopting a simpler and consistent ECCN exclusion approach for License Exception STA and clarifying relationship between § 740.20(b)(2) and Special Conditions for STA section in ECCNs.

This proposed rule seeks to simplify License Exception STA by adopting a simpler and consistent approach for excluding ECCNs from License Exception STA. These proposed changes are discussed in this Section V.A, which also provides background on the current requirements and how these requirements have evolved since 2011. This rule proposes changes to enable exporters, reexporters, and transferors to more easily, quickly, and consistently determine whether an item is eligible for License Exception STA.

Prior to reviewing the exclusions under § 740.20(b)(2) of License Exception STA, the exporter, reexporter, or transferor should review the Special Conditions for STA section in the applicable ECCN, which may exclude that ECCN or certain items under that ECCN from the use of License Exception STA. Substantively, in order to determine if an ECCN or certain items under that ECCN is excluded from the use of License Exception STA, an exporter, reexporter, or transferor will need to confirm that the item is not excluded under the Special Conditions for STA section of the ECCN and that the ECCN is not otherwise excluded from the use of License Exception STA under § 740.20(b)(2).

ECCNs as a whole or certain items under an ECCN may be excluded from License Exception STA under the Special Conditions for STA section of an Export Control Classification Number (ECCN) or under the exclusions under § 740.20(b)(2). When License Exception STA was originally added to the EAR, the construct was that the Special Conditions for STA section would generally be used to exclude certain items from License Exception STA for Country Group A:6, and the ECCNs exclusions under § 740.20(b)(2) would be used to exclude items completely from License Exception STA for Country Groups A:5 and A:6. However, over time as eligibility for certain ECCNs has been adjusted for License Exception STA, BIS deviated from the general construct for excluding ECCNs or certain items under ECCNs, and this has created unneeded complexity. This rule proposes changes to adopt a simpler and consistent approach for how ECCNs or certain items under ECCNs would be excluded from License Exception STA for Country Group A:6 or for Country Groups A:5 and A:6.

For example, in some of the Special Conditions for STA sections in ECCNs, BIS started excluding those ECCNs or certain items under those ECCNs completely from License Exception STA for Country Groups A:5 and A:6 instead of relying on § 740.20(b)(2), which deviates from the original construct. In other cases, BIS used both Special Conditions for STA sections and § 740.20(b)(2) to exclude ECCNs or certain items under those ECCNs completely from License Exception STA for Country Groups A:5 and A:6. Each of those variants creates unneeded complexity for exporters, reexporters, and transferors trying to understand what ECCNs or portions of ECCNs are excluded under License Exception STA, in particular if they are looking for a consistent construct for how items are being excluded under License Exception STA.

If either the Special Conditions for STA section or § 740.20(b)(2) excludes an item from the use of License Exception STA, then that item is excluded. However, from a compliance perspective, using two different methods, and in certain cases using both methods of exclusion, creates unnecessary complexity. This rule would adopt a consistent, single construct for how

ECCNs or portions of ECCNs are excluded from License Exception STA, which should make it easier for exporters, reexporters, and transferors to apply this aspect of License Exception STA.

This rule would make the following changes to § 740.20(b)(2) to improve this aspect of License Exception STA. In § 740.20(b)(2) (Limitations on the Use of License Exception STA), this rule would revise the paragraph heading to read as “Items excluded from the use License Exception STA for Country Groups A:5 and A:6.” This rule proposes deleting all of paragraph (b)(2) ECCN exclusions and moving those exclusions into the Special Conditions for STA section of the 29 respective ECCNs, except for existing paragraph (b)(2)(i), and existing paragraph (b)(2)(iii), which would be redesignated as paragraph (b)(2)(ii). This rule also proposes the removal of the redundant paragraph (b)(2)(iv) that specified License Exception STA was not available for items subject to the exclusive export control jurisdiction of another U.S. Government agency. Paragraph (b)(2)(iv) is not needed because § 734.3(b)(1) of the EAR already specifies that items subject to the exclusive export control jurisdiction of another U.S. Government agency are not subject to the EAR. Paragraph (b)(2) would be limited to paragraph (b)(2)(i) specifying that License Exception STA may not be used to overcome parts 744 or 746 license requirements and paragraph (b)(2)(ii) specifying the reasons for control that License Exception STA may not overcome. The remaining paragraphs are under paragraph (b)(2) would be removed and added under the respective 29 ECCNs.

The revisions to the 29 ECCNs would consist of revising 10 of the ECCNs (0A501, 1E001, 3E001, 6D003, 6E001, 6E002, 9D001, 9D002, 9D004, and 9E003), which already include an exclusion for certain portions of those ECCNs to exclude certain items under those ECCNs from License Exception STA for purposes of Country Group A:6, to identify the additional items under those ECCNs that are excluded from License Exception STA for both Country Groups A:5 and A:6. This rule also proposes revising 19 ECCNs (0A502, 0A503, 0A981, 0A982, 0A983, 0E504, 0E982, 1C353, 1C354, 1E351, 2E003, 6A002, 6D002, 6D991, 7D004, 9A001, 9B001, 9E001, 9E002), that do not include a Special Conditions for STA section to add an exclusion for

those items for License Exception STA for purposes of Country Group A:5 and A:6. For 1E001, 2E003, 6D002, 7D004, 9B001, 9E001, and 9E002, this rule also proposes additional restrictions for STA eligibility.

As a conforming change to these proposed revisions to paragraph (b)(2), this rule would redesignate Note 1 to paragraphs (b)(2) and (3) as Note 1 to paragraph (b)(3).

BIS welcomes comments on whether the changes above will make it easier for exporters, reexporters, and transferors to use License Exception STA. In order to turn License Exception STA into a list-based license exception, BIS would remove all of the Special Conditions for STA sections in the respective ECCNs and § 740.20(b)(2) and then add STA paragraphs under the License Exceptions section to each of those respective ECCNs. The new STA paragraphs would positively identify the ECCN or “items” level paragraphs under those respective ECCNs that are eligible for License Exception STA, including any applicable exclusions. This would, in certain cases, lead to fairly long STA paragraphs, particularly when accounting for the differences in STA eligibility between Country Groups A:5 and A:6, which may make those provisions harder for exporters, reexporters, and transferors to understand.

Another alternative that BIS welcomes comments on would be to remove all of the Special Conditions or STA sections in 142 ECCNs and § 740.20(b)(2) and then add two new supplements to § 740.20 with one supplement identifying items eligible for License Exception STA for Country Group A:5 and a second supplement identifying the smaller set of only items controlled for National Security (NS) reasons that would be eligible for License Exception STA for Country Group A:6. Although there could be added complexity in taking either of these approaches, both cases would reduce the overall number of steps needed to determine if an item was eligible for License Exception STA.

Lastly, on this aspect of the proposed rule, BIS also welcomes comments on any other alternative approaches that the agency may not have already described above that could be a

better approach for identifying which items are eligible for or excluded from License Exception STA.

B. Addition of Note to paragraph (b)(2) to provide additional clarity between the relationship between § 740.20(b)(2) and Special Conditions for STA section in ECCNs.

In § 740.20, this rule proposes adding a new Note to paragraph (b)(2). This note would provide greater context on the relationship between § 740.20(b)(2) and Special Conditions for STA section in ECCNs. The note would describe the number of Special Conditions for STA sections and the types of items excluded under those ECCNs and clarify how these two exclusion methods work together in defining what ECCNs or other items under those ECCN are excluded from the use of License Exception STA, either for Country Group A:5 and A:6 or for only Country Group A:6.

VI. Removal of limitation on use of License Exception APR under paragraphs (a) and (b) for reexports between and among certain countries to reflect their close coordination with the United States on export controls.

In § 740.20(e) (Limitation on subsequent exports, reexports or in country transfers), this rule proposes removing the limitation on the use of License Exception APR (§ 740.16(a) or (b) of the EAR) for commodities that have been exported, reexported, or transferred in-country pursuant to License Exception STA for reexports between and among destinations identified in both Country Group A:5 in supplement no. 1 to part 740 and supplement no. 3 to part 746 of the EAR (*i.e.*, a destination listed in Country Group A:5 but not in supplement no. 3 to part 746 would not be eligible for using APR). These destinations have cooperated closely with the United States on export controls, including ensuring appropriate reexport controls were in place on Russia and Belarus after Russia's further invasion of Ukraine. Accordingly, given their effective dual-use export control systems and use of those systems to advance shared national security and foreign policy interests, BIS has determined it would be warranted to give these destinations more permissive treatment to receive items under License Exception APR paragraphs (a) and (b),

which prior to this rule, would have required a different EAR authorization, such as using License Exception STA to authorize the reexport to these destinations or a BIS license.

BIS is aware that the limitation on the use of License Exception APR under paragraphs (a) and (b) has for certain reexporters encouraged them to continue to prefer receiving items under BIS licenses instead of agreeing to receive items under License Exception STA. The change this rule would make to paragraph (e) to narrow the scope of the License Exception APR restriction for these destinations would be consistent with U.S. national security and foreign policy interests and is anticipated by BIS to encourage consignees, as well as reexporters and transferors in these destinations for reexports between and among these destinations, to be more receptive to receiving items under License Exception STA, in particular if they have facilities that are located in more than one destination located in both Country Group A:5 and supplement no. 3 to part 746.

This rulemaking also proposes revisions to paragraph (e) for clarity by revising the heading to remove the terms “exports” and “in country transfer.” The scope of paragraph (e) is a limitation on subsequent reexports, so this rule proposes making this clarification in the heading and in the first sentence of paragraph (e) to remove the second references to subsequently “exported” and “transferred in country.” Subsequently “exported” under License Exception APR is not needed because License Exception APR only authorizes reexports and transfers (in-country), so inclusion of “exported” is not needed and may create confusion for exporters, reexporters, and transferors. The inclusion of subsequently “transferred in country” is also not needed in the context of this paragraph. A commodity received under License Exception STA may be transferred (in-country) without requiring an EAR authorization, provided there is no part 744 end-use or end user controls applicable. See Note 1 to paragraph (a) of License Exception STA. If the commodity or other item received under License Exception STA is a “600 series” item, then the ‘completing the chain’ concept is applicable (as specified under Note 1 to paragraphs (b)(2) and (3) to License Exception STA, which this rule would redesignate as

Note 1 to paragraph (b)(3)), but no additional EAR authorization is required for subsequent transfers (in-country), provided the chain is eventually completed and there are no applicable part 744 end-use or end user controls. Lastly, for clarity, this rule would revise the last sentence of paragraph (e) to remove the term “export” and add in its place the term “reexport.”

VII. BIS seeks public comments on scope of ECCNs eligible for STA

To assist BIS in assessing whether the scope of ECCNs currently eligible for STA meets the objective of STA and U.S. national security requirements, BIS seeks public comment on the following issues:

A. What additional items that are currently not eligible for License Exception STA do you believe should have STA eligibility added for Country Group A:5 or for both Country Groups A:5 and A:6? Commenters should identify specific ECCNs and the rationale for adding STA eligibility for Country Group A:5 or both Country Groups A:5 and A:6.

B. What additional items that are currently eligible for License Exception STA do you believe should have STA eligibility removed for Country Group A:5, for Country Group A:6, or for both Country Groups A:5 and A:6? In this rule, the USG is including proposed revisions to the License Exception STA eligibility for items under seven ECCNs in particular.

C. This rulemaking proposes specific regulatory revisions to further limit STA eligibility for the following ECCNs:

1. *1E001*: The current STA special condition states that License Exception STA may not be used to ship or transmit “technology” according to the General Technology Note for the “development” or “production” of equipment and materials specified by ECCNs 1A002, 1C001, 1C007.c , 1C010.c or d or 1C012 to any of the destinations listed in Country Group A:6. The proposed revisions to the regulatory text for 1E001 would restrict STA eligibility for 1E001 “technology” for the “development” or “production” of items specified in ECCNs 1A002; 1C001; 1C007.c or .d; 1C008.a.1; 1C009.b; 1C010.b, .c or .d; 1C351.a, .b, .c, .d.11, .d.12, .d.14, .d.15, or .e; 1C353; or 1C354, to any of the destinations listed in Country Group A:5 or A:6. In

addition, the proposed revisions to the regulatory text for 1E001 would restrict STA eligibility for “technology” according to the General Technology Note for the “development” or “production” of equipment and materials specified by ECCN 1C012 to any of the destinations listed in Country Group A:6.

2. *2E003*: The current 2E003 does not include a Special Conditions for STA section. The proposed revisions to the regulatory text for 2E003 would add a Special Conditions for STA section to restrict STA eligibility for “technology” according to the General Technology Note for 2E003.f when used for the application of inorganic overlay coatings on gas turbine engine combustors, or turbine blades, vanes or “tip shrouds,” to any of the destinations listed in Country Group A:5 or A:6.

Note for proposed changes to 1E001 and 2E003: As referenced under the Section I, BIS requested public comment regarding STA eligibility of ECCN 1E001 and 2E003.f in the October 2021 rule. BIS received 6 public comments, and the comments were generally not supportive of new restrictions on STA eligibility for these two ECCNs; however, given the passage of two years and the current rule’s request for comments on STA eligibility for other ECCNs, BIS wants to provide the public another opportunity to submit additional comments on 1E001 and 2E003.f, including those six entities that submitting comments previously, as well as any other interested entities.

3. *6D002*: The current STA special condition in § 740.20(b)(2) states that License Exception STA may not be used for “software” in ECCN 6D002 “specially designed” for the “use” of commodities controlled under 6A002.b, to any of the destinations listed in Country Group A:5 or A:6. The proposed revisions to the regulatory text for 6D002 would restrict STA eligibility for software “specially designed” for the “use” of equipment controlled by 6A008 and 6B008 to both Country Group A:5 and A:6.

4. *7D004*: The current STA Special condition states that “License Exception STA may not be used to ship or transmit “software” in 7D004.a to .d and .g to any of the destinations listed

in Country Groups A:6.” The proposed revisions to the regulatory text in 7D004 would extend the STA eligibility restriction to Country Group A:5.

5. *9B001*: The current STA Special condition states that “License Exception STA may not be used to ship commodities in 9B001 to any of the destinations listed in Country Group A:6.” The proposed revisions to the regulatory text in 9B001 would extend the STA eligibility restriction to Country Group A:5.

6. *9E001*: The current STA Special condition states that “License Exception STA may not be used to ship or transmit any technology in this entry to any of the destinations listed in Country Group A:6.” The proposed revisions to the regulatory text in 9E001 would extend the STA eligibility restriction so that STA would not be able to used to ship or transmit any technology in 9E001 for the “development” of equipment under 9B001 to destinations in Country Group A:5 or A:6.

7. *9E002*: The current STA Special condition states that “License Exception STA may not be used to ship or transmit any technology in this entry to any of the destinations listed in Country Group A:6. The proposed revisions to the regulatory text in 9E002 would extend the STA eligibility restriction so that STA would not be able to used to ship or transmit any technology in 9E002 for the “production” of equipment under 9B001 to destinations in Country Group A:5 or A:6.

Note: BIS requested public comment regarding STA eligibility of ECCN 9E003.k in the interim final rule which implemented decisions from the 2022 Wassenaar Arrangement (WA 2022 rule) (see 88 FR 71932 (October 18, 2023)); comment period for the WA22 rule closes on December 5, 2023. The restrictions BIS proposes for the regulatory text of the STA Special Conditions for ECCNs 6D002, 7D004, 9B001, 9E001, and 9E002 (and 9E003 in the WA 2022 rule) are included solely to provide clarity to the public of the potential scope of such restrictions to facilitate BIS’s receipt of informed comments from the regulated public. Such text does not indicate BIS’s regulatory intent to adopt such restrictions in final form.

Comments are welcome from the public on the STA eligibility restrictions proposed in this rule on ECCNs 1E001, 2E003, 6D002, 7D004, 9B001, 9E001, 9E002, as well as any other ECCN. As part of these comments, BIS welcomes information on the impact such changes would have to existing programs and transactions.

VIII. BIS seeks public comments on the following additional questions

In addition to the questions described above that BIS seeks public comments, BIS in this proposed rule also seeks comments on the following questions:

A. What factors contribute to the apparent reluctance of certain exporters, reexporters, and transferors to use License Exception STA or certain consignees to receive items under License Exception STA?

B. What changes should be made to the EAR to encourage greater usage of License Exception STA?

C. What changes or clarifications could be made to the information required on the prior consignee statement required under § 740.20(d)(2) for the “600 series,” 9x515 ECCNs, and other ECCNs’ prior consignee statements to facilitate increased usage of License Exception STA?

D. What additional changes could be made to License Exception STA to further facilitate exports, reexports, and transfers (in-country) between and among destinations identified in both Country Group A:5 in supplement no. 1 to part 740 and supplement no. 3 to part 746?

E. What are the anticipated effects of requiring use of License Exception STA under the EAR when eligible, like other EAR license exceptions?

F. Should License Exception STA be a list-based license exception?

G. What type of additional BIS outreach materials or outreach activities could encourage greater usage of License Exception STA?

Rulemaking Requirements

1. BIS has examined the impact of this rule as required by Executive Orders 12866, 13563, and 14094, which direct agencies to assess all costs and benefits of available regulatory

alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public, health, and safety effects, distributive impacts, and equity). This rule is considered a “significant regulatory action” under section 3(f) of Executive Order 12866.

2. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.) (PRA), unless that collection of information displays a currently valid Office of Management and Budget (OMB) Control Number.

This rule involves the following OMB-approved collections of information subject to the PRA:

- 0694-0088, “Multi-Purpose Application,” which carries a burden hour estimate of 29.4 minutes for a manual or electronic submission;
- 0694-0096 “Five Year Records Retention Period,” which carries a burden hour estimate of less than 1 minute;
- 0694-0122, “Licensing Responsibilities and Enforcement;” and
- 0607-0152 “Automated Export System (AES) Program,” which carries a burden hour estimate of 3 minutes per electronic submission.

BIS expects the burden hours associated with these collections to decrease by 221 hours for an estimated cost decrease of \$7,735, which is within the estimated burdens and costs of these collections. Additional information regarding these collections of information – including all background materials -- can be found at <https://www.reginfo.gov/public/do/PRAMain> by using the search function to enter either the title of the collection or the OMB Control Number.

3. This rule does not contain policies with federalism implications as that term is defined in Executive Order 13132.

4. Pursuant to section 1762 of ECRA (50 U.S.C. 4821), this action is exempt from the Administrative Procedure Act (APA) (5 U.S.C. 553) requirements for notice of proposed rulemaking, opportunity for public participation, and delay in effective date. While section 1762 of ECRA provides sufficient authority for such an exemption, this action is also independently exempt from these APA requirements because it involves a military or foreign affairs function of the United States (5 U.S.C. 553(a)(1)). However, in order to better inform these regulatory changes, BIS is publishing this rule as a proposed rulemaking in order to solicit public comments before being published in final form.

5. Because a notice of proposed rulemaking and an opportunity for public comment are not required to be given for this rule by 5 U.S.C. 553, or by any other law, the analytical requirements of the Regulatory Flexibility Act, 5 U.S.C. 601, *et seq.*, are not applicable. Accordingly, no regulatory flexibility analysis is required, and none has been prepared.

List of Subjects

15 CFR Part 740

Administrative practice and procedure, Exports, Reporting and recordkeeping requirements.

15 CFR Part 774

Exports, Reporting and recordkeeping requirements.

For the reasons stated in the preamble, parts 740 and 774 of the Export Administration Regulations (15 CFR parts 730 through 774) are proposed to be amended as follows:

PART 740 – LICENSE EXCEPTIONS

1. The authority citation for part 740 continues to read as follows:

Authority: 50 U.S.C. 4801-4852; 50 U.S.C. 4601 *et seq.*; 50 U.S.C. 1701 *et seq.*; 22 U.S.C. 7201 *et seq.*; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783.

2. Section 740.1 is amended by adding a sentence at the end of paragraph (a) to read as follows:

§ 740.1 Introduction.

* * * * *

(a) * * * Any license exception authorizing exports and reexports of technology also authorizes deemed exports and deemed reexports, provided the terms and conditions for a release of technology under that license exception are met.

* * * * *

3. Section 740.20 is revised to read as follows:

§ 740.20 License Exception Strategic Trade Authorization (STA).

(a) *Introduction.* This section authorizes exports, reexports, and transfers (in-country), including deemed exports and deemed reexports, in lieu of a license that would otherwise be required pursuant to part 742 of the EAR. For purposes of the paragraph (d) requirements, only paragraph (d)(4) is applicable for deemed exports and deemed reexports. License Exception STA is not a list-based license exception.

Note 1 to paragraph (a): License Exception STA authorizes transfers (in-country) but is only needed to authorize a transfer (in-country) when an EAR authorization is required. If a transfer (in-country) is not being made under STA, the requirements specified in this section do not apply (see Note 1 to paragraph (b)(3) of this section for requirements specific to staying within the scope of the original License Exception STA authorization and the concept of ‘completing the chain’ for purposes of “600 series” items originally authorized under License Exception STA).

(b) *Requirements and Limitations--(1) Requirements for Using License Exception STA.*

(i) All of the reasons for control that impose a part 742 license requirement on the export, reexport, or in country transfer must be addressed in at least one authorizing paragraph of this section.

(ii) The party using License Exception STA must comply with all of the requirements in paragraph (d) of this section.

(2) Items excluded from the use License Exception STA for Country Groups A:5 and A:6.

Items identified under paragraphs (b)(2)(i) and (ii) are excluded from License Exception STA for Country Groups A:5 and A:6.

(i) License Exception STA may not be used in lieu of any license requirement imposed by “Part 744—Control Policy: End User and End Use Based” or by “Part 746—Embargoes and Other Special Controls” of the EAR.

(ii) License Exception STA may not be used for any item that is controlled for reason of encryption items (EI), short supply (SS), surreptitious listening (SL), missile technology (MT) or chemical weapons (CW);

Note 2 to paragraph (b)(2): In addition to the STA exclusions identified under paragraph (b)(2), 157 ECCNs on the CCL include Special Conditions for STA, which are used to exclude entire ECCNs or parts of ECCNs from the use of License Exception STA for destinations in Country Group A:6 or Country Group A:5 and A:6. If an item is excluded under the Special Conditions section of an ECCN or paragraph (b)(2) of this section, the item may not be exported, reexported, or transferred (in-country) under License Exception STA for that Country Group(s).

(3) Limitations on the Use of STA that are Specific to “600 series” Items. (i) License Exception STA may not be used for any “600 series” items identified in the relevant ECCN as not being eligible for STA.

(ii) License Exception STA may be used to export, reexport, and transfer (in-country) “600 series” items to persons, whether non-governmental or governmental, if they are in and, for natural persons, nationals of a country listed in Country Group A:5 (See supplement no. 1 to part 740 of the EAR) or the United States and if:

(A) The *ultimate* end user for such items is the armed forces, police, paramilitary, law enforcement, customs, correctional, fire, or a search and rescue agency of a government of one of the countries listed in Country Group A:5, or the United States Government;

(B) For the “development,” “production,” operation, installation, maintenance, repair, overhaul, or refurbishing of an item in one of the countries listed in Country Group A:5 or the United States that will be for one, or more, of the following purposes:

(1) Ultimately to be used by any such government agencies in one of the countries listed in Country Group A:5 or the United States Government; or

(2) Sent to a person in the United States and not for subsequent export under § 740.9(b)(1) (License Exception TMP for items moving in transit through the United States); or

(C) The United States Government has otherwise authorized the ultimate end use, the license or other authorization is in effect, and the consignee verifies in writing that such authorization exists and has provided the license or other approval identifier to the exporter, reexporter, or transferor (as applicable).

(iii) License Exception STA may not be used to export, reexport, or transfer (in-country) end items described in ECCN 0A606.a, ECCN 8A609.a, ECCN 8A620.a or .b, or ECCN 9A610.a until after BIS has approved their export under STA under the procedures set out in § 740.20(g).

(iv) License Exception STA may not be used to export, reexport, or transfer (in-country) “600 series” items if they are “600 Series Major Defense Equipment” and the value of such items in the contract requiring their export exceeds \$25,000,000.

Note 3 to paragraph (b)(3): Any export, reexport, or transfer (in-country) originally authorized under License Exception STA must stay within the scope of the original authorization. For example, for “600 series” items authorized under License Exception STA, such items must be provided to an eligible ultimate end user, such as a Country Group A:5 military, to stay in compliance with the original authorization. This requirement for the “600

series” is referred to as ‘completing the chain,’ meaning regardless of how many times the “600 series” item is transferred (in-country) or whether the “600 series” item is incorporated into higher level assemblies or other items, the “600 series” item must ultimately be provided to an eligible ultimate end user, or be otherwise authorized under the EAR. This applies regardless of whether the “600 series” item has been incorporated into a foreign-made item that may no longer be “subject to the EAR.” Because the other items eligible for authorization under License Exception STA (9x515 and other non-600 series ECCNs) do not include the “600 series” requirements specific to ultimate end user, this ‘completing the chain’ concept does not apply to 9x515 and other non-600 series ECCNs authorized under License Exception STA. However, the original export, reexport, or transfer (in-country) made under License Exception STA for 9x515 and other non-600 series ECCNs still must comply with the original authorization—meaning the terms and conditions of License Exception STA.

(c) *Authorizing paragraphs--(1) Multiple reasons for control.* Exports, reexports, and transfers (in-country) in which the only applicable reason(s) for control is (are) national security (NS); chemical or biological weapons (CB); nuclear nonproliferation (NP); regional stability (RS); crime control (CC), and/or significant items (SI) are authorized for destinations in or nationals of Country Group A:5 (See supplement no.1 to part 740 of the EAR).

Note 4 to paragraph (c)(1). License Exception STA under § 740.20(c)(1) may be used to authorize the export, reexport, or transfer (in-country) of “600 series” items only if the purchaser, intermediate consignee, ultimate consignee, and end user have previously been approved on a license or other approval, i.e., Directorate of Defense Trade Controls (DDTC) Manufacturing License Agreement (MLA), Technical Assistance Agreement (TAA), Warehouse Distribution Agreement (WDA), or General Correspondence approval (GC) issued by BIS or DDTC at the U.S. Department of State. Note to paragraph (c)(1) is not applicable to deemed exports or deemed reexports authorized under License Exception STA. BIS encourages as a good compliance practice for entities using License Exception STA to authorize deemed exports and

deemed reexports to have measures in place to vet the foreign national, such as employment screening and the use of non-disclosure agreements. In addition, any deemed export or deemed reexport authorized under License Exception STA will need to comply with the requirements of paragraph (d)(4) of this section.

(2) *Controls of lesser sensitivity.* Exports, reexports, and transfers (in-country) in which the only applicable reason for control is national security (NS) and the item being exported, reexported, or transferred (in-country) is not designated in the STA paragraph in the License Exception section of the ECCN that lists the item are authorized for destinations in or nationals of Country Group A:6 (See supplement no. 1 to this part).

(d) *Conditions--(1) Requirement to furnish Export Control Classification Number.* (i) The exporter must furnish to the consignee the ECCN of each item to be exported pursuant to this section. Once furnished to a particular consignee, the ECCN that applies to any item need not be refurnished to that consignee at the time the same exporter makes an additional export of the same item, if the information remains accurate at the time of the additional export.

(ii) A reexporter or transferor must furnish to subsequent consignees the ECCN, provided by the exporter or a prior reexporter or transferor, of each item to be reexported or transferred (in-country) pursuant to this section. Once furnished to a particular consignee, the ECCN that applies to any item need not be refurnished to that consignee at the time the same reexporter or transferor makes an additional reexport or transfer (in-country) of the same item, if the information remains accurate at the time of the additional reexport or transfer (in-country).

(iii) For purposes of determining reexport or transfer eligibility under this section, the consignee may rely on the ECCN provided to it by the party required to furnish the ECCN under paragraph (d)(1)(i) or (ii) of this section unless the consignee knows that the ECCN is incorrect or has changed. The word “knows” has the same meaning as the term “knowledge” in § 772.1 of the EAR.

(2) *Prior Consignee Statement.* The requirements in this paragraph (d)(2) apply to each party using License Exception STA to export, reexport, or transfer (in-country), including reexporters and transferors of items previously received under License Exception STA. The exporter, reexporter, or transferor must obtain the following statement in writing from its consignee(s) prior to exporting, reexporting, or transferring (in-country) the item and must retain the statement in accordance with part 762 of the EAR. One statement may be used for multiple exports, reexports, or transfers (in-country) of the same items between the same parties so long as the party names, the description(s) of the item(s) and the ECCNs are correct. The exporter, reexporter, or transferor must maintain a log or other record (such as documents created in the ordinary course of business) that identifies each shipment made pursuant to this section and the specific consignee statement that is associated with each shipment. For purposes of this paragraph (d)(2), a log or other record is not required for intangible (*i.e.*, electronic or in an otherwise intangible form) exports, reexports, or transfers (in-country) made under License Exception STA, but an exporter, reexporter, or transferor is required, prior to making any export, reexport, or transfer (in-country), to ensure that a prior consignee statement has been obtained pursuant to the requirements of this paragraph (d)(2). (*See* Note 1 to paragraph (d)(3) of this section for additional guidance on intangible exports, reexports, and transfers (in-country), including best practices). Paragraphs (d)(2)(i) through (vi) of this section are required for all transactions. In addition, paragraph (d)(2)(vii) is required for all transactions in “600 series” items and paragraph (viii) of this section is required for transactions in “600 series” items if the consignee is not the government of a country listed in Country Group A:5 (See supplement no. 1 to part 740 of the EAR). Paragraph (d)(2)(viii) is also required for transactions including 9x515 items.

[INSERT NAME(S) OF CONSIGNEE(S)]:

(i) Is aware that [INSERT GENERAL DESCRIPTION AND APPLICABLE ECCN(S)]
OF ITEMS TO BE SHIPPED (*e.g.*, aircraft parts and components classified under ECCN

9A610)] will be shipped pursuant to License Exception Strategic Trade Authorization (STA) in § 740.20 of the United States Export Administration Regulations (15 CFR 740.20);

(ii) Has been informed of the ECCN(s) noted above by [INSERT NAME OF EXPORTER, REEXPORTER OR TRANSFEROR];

(iii) Understands that items shipped pursuant to License Exception STA may not subsequently be reexported pursuant to paragraphs (a) or (b) of License Exception APR (15 CFR 740.16(a) or (b));

(iv) Agrees to obtain a prior consignee statement when using License Exception STA for any reexport or transfer (in-country) of items previously received under License Exception STA;

(v) Agrees not to export, reexport, or transfer these items to any destination, use or user prohibited by the United States' Export Administration Regulations;

(vi) Agrees to provide copies of this document and all other export, reexport, or transfer records (*i.e.*, the documents described in 15 CFR part 762) relevant to the items referenced in this statement to the U.S. Government as set forth in 15 CFR 762.7;

(vii) Understands that License Exception STA may be used to export, reexport, and transfer (in-country) "600 series" items to persons, whether non-governmental or governmental, only if they are in and, for natural persons, nationals of a country listed in Country Group A:5 (See supplement no. 1 to part 740 of the EAR) or the United States and if:

(A) The *ultimate* end user for such items is the armed forces, police, paramilitary, law enforcement, customs, correctional, fire, or a search and rescue agency of a government of one of the countries listed in Country Group A:5 or the United States Government;

(B) For the "development," "production," operation, installation, maintenance, repair, overhaul, or refurbishing of an item in one of the countries listed in Country Group A:5 or the United States that will be for one, or more, of the following purposes:

(1) Ultimately to be used by any such government agencies in one of the countries listed in Country Group A:5 or the United States Government; or

(2) Sent to a person in the United States and not for subsequent export under § 740.9(b)(1) (License Exception TMP for items moving in transit through the United States); or

(C) The United States Government has otherwise authorized the ultimate end use, the license or other authorization is in effect, and the consignee verifies in writing that such authorization exists and has provided the license or other approval identifier to the exporter, reexporter or transferor (as applicable).

(viii) Agrees to permit a U.S. Government end-use check with respect to the items.

[INSERT NAME(S) AND TITLE(S) OF PERSON(S) SIGNING THS DOCUMENT, AND DATE(S) DOCUMENT IS SIGNED].

Note 5 to paragraph (d)(2): When multiple consignees who form a network engaged in a production process (or other type of collaborative activity, such as joint development) will be receiving items under License Exception STA, a single prior consignee statement for multiple consignees may be used for any item eligible for export, reexport, or transfer (in-country) under License Exception STA, provided all of the applicable requirements of License Exception STA are met, including those specified in paragraph (d)(2).

Note 6 to paragraph (d)(2): Country Group A:5 and A:6 government consignees are not required to sign or provide a prior consignee statement.

(3) *Notification to consignee of STA shipment.* With each shipment under License Exception STA, the exporter (or reexporter or transferor as applicable), must notify the consignee in writing that the shipment is made pursuant to License Exception STA. The notice must either specify which items are subject to License Exception STA or state that the entire shipment is made pursuant to License Exception STA. The notice must clearly identify the shipment to which it applies. The written notice may be conveyed by paper documents or by electronic methods such as facsimile or email.

Note 7 to paragraph (d)(3): While the exporter, reexporter, and transferor must furnish the applicable ECCN and obtain a consignee statement prior to export, reexport or transfer (in-

country) made under License Exception STA in accordance with the requirements of paragraphs (d)(1) and (d)(2) of this section, intangible (i.e., electronic or in an otherwise intangible form) exports, reexports, and transfers (in-country) made under License Exception STA are not subject to the notification requirements of paragraph (d)(3) of this section. However, any export, reexport, or transfer (in-country) made under STA must stay within the scope of the original authorization.

(4) *Requirements for releases of software source code or technology within a single country.* Instead of the requirement of paragraphs (d)(1) through (d)(3) of this section, the party releasing software source code or technology to a national of a country listed in Country Group A:5 or A:6 (See supplement no. 1 to this part) must notify the recipient of the software source code or technology of the restrictions upon further release of the software source code or technology. The notification must either expressly inform the recipient that the EAR impose limits on further disclosure or must be in the form of an agreement in which the recipient agrees to limits on further disclosure. Any such agreement must impose limits that are equivalent to or more restrictive than all limits on further disclosure that are imposed by the EAR. The notification must be in writing and a copy of it must be retained by the party making the release and the recipient of the release. The notification may be in a separate document or included in a document such as a contract or a nondisclosure agreement. If the document has an expiration date, it must provide that the restrictions on disclosure do not expire.

(e) *Limitation on subsequent reexports.* If a commodity has been exported, reexported or transferred in-country pursuant to this section, it may not be subsequently reexported pursuant to paragraphs (a) or (b) of License Exception APR (§ 740.16(a) or (b) of the EAR), except for reexports between and among destinations identified in both Country Group A:5 in supplement no. 1 to this part and supplement no. 3 to part 746 of the EAR. Paragraphs (a) and (b) of License Exception APR do not authorize reexports of software or technology.

(f) *Applicability of Wassenaar Arrangement reporting requirements.* See § 743.1 of the EAR for special reporting requirements that apply to some exports made pursuant to this section.

(g) *License Exception STA eligibility requests for 9x515 and “600 series” items —(1) Applicability.* Any person may request License Exception STA eligibility for end items described in ECCN 0A606.a, ECCN 8A609.a, ECCNs 8A620.a or .b, “spacecraft” in ECCNs 9A515.a.1, .a.2, .a.3, or .a.4, “sub-orbital craft,” or items in 9A515.g, 9A610.a, or technology ECCNs 9E515.b, .d, .e, or .f.

(2) *Required information and manner of requests.* Requests for License Exception STA eligibility must be made via the BIS Simplified Network Application Process–Redesign (SNAP–R) system unless BIS authorizes submission via the paper BIS–748–P Multipurpose Application form. For situations in which BIS 748–P submissions may be authorized, see § 748.1(d)(1). For required information specific to License Exception STA eligibility requests, see supplement no. 1 to part 748, Blocks 5 and 6 and supplement no. 2 to part 748, paragraph (w). In SNAP–R the work type for these applications is “Export.”

(3) *Timeline for USG review.* The Departments of Commerce, Defense and State will review License Exception STA eligibility requests in accordance with the timelines set forth in Executive Order 12981 and § 750.4. If the License Exception STA request is approved, the process outlined in paragraph (g)(5)(i) of this section is followed.

(4) *Review criteria.* The Departments of Commerce, Defense and State will determine whether the “end item” is eligible for this license exception based on an assessment of whether it provides a critical military or intelligence advantage to the United States or is otherwise available in countries that are not regime partners or close allies. If the “end item” does not provide a critical military or intelligence advantage to the United States or is otherwise available in countries that are not regime partners or close allies, the Departments will determine that License Exception STA is available unless an overarching foreign policy rationale for restricting STA availability can be articulated. Consensus among the Departments is required in order for an

“end item” to be eligible for License Exception STA. Such determinations are made by the departments’ representatives to the Advisory Committee on Export Policy (ACEP), or their designees.

(5) *Disposition of License Exception STA eligibility requests* —(i) *Approvals*. If the request for STA eligibility is approved, the applicant will receive notification from BIS authorizing the use of the additional License Exception STA for the specific end items requested. This will be in the form of a notice generated by SNAP–R to the applicant. Applicants who receive an approval notification may share it with companies affiliated with them, such as a branch or distributor, and may also take steps to make it public (*e.g.*, on their Web site) if the applicants so wish. In addition, BIS will add a description of the approved end item in the relevant ECCN and in an online table posted on the BIS Web site, which removes the restriction on the use of License Exception STA for the end item identified in the approved request. BIS will publish, as needed, a final rule adding this license exception eligibility to the EAR for that ECCN entry or end item.

(ii) *Denials*. If the STA eligibility request is not approved, the applicant will receive written notification from BIS. This will be in the form of a notice generated by SNAP–R to the applicant. Applicants may re-submit STA eligibility requests at any time.

PART 774 - THE COMMERCE CONTROL LIST

4. The authority citation for part 774 continues to read as follows:

Authority: 50 U.S.C. 4801-4852; 50 U.S.C. 4601 *et seq.*; 50 U.S.C. 1701 *et seq.*; 10 U.S.C. 8720; 10 U.S.C. 8730(e); 22 U.S.C. 287c, 22 U.S.C. 3201 *et seq.*; 22 U.S.C. 6004; 42 U.S.C. 2139a; 15 U.S.C. 1824; 50 U.S.C. 4305; 22 U.S.C. 7201 *et seq.*; 22 U.S.C. 7210; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783.

5. Supplement No. 1 to part 774 is amended by revising ECCNs 0A501, 0A502, 0A503, 0A981, 0A982, 0A983, 0E504, 0E982, 1C353, 1C354, 1E001, 1E351, 2E003, 3E001, 6A002,

6D002, 6D003, 6D991, 6E001, 6E002, 7D004, 9B001, 9D001, 9D002, 9D004, 9E001, 9E002, and 9E003, to read as follows:

Supplement No. 1 to Part 774—The Commerce Control List

* * * * *

0A501 Firearms (except 0A502 shotguns) and related commodities as follows (see List of Items controlled).

License Requirements

Reason for Control: NS, RS, FC, UN, AT

Control(s)	Country chart (see supp. No. 1 to part 738)
NS applies to entire entry except 0A501.y	NS Column 1
RS applies to entire entry except 0A501.y	RS Column 1
FC applies to entire entry except 0A501.y	FC Column 1
UN applies to entire entry	See § 746.1 of the EAR for UN controls
AT applies to entire entry	AT Column 1

License Requirement Note: In addition to using the Commerce Country Chart to determine license requirements, a license is required for exports and reexports of ECCN 0A501.y.7 firearms to the People's Republic of China.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

LVS: \$500 for 0A501.c, .d, and .x.

\$500 for 0A501.c, .d, .e, and .x if the ultimate destination is Canada.

GBS: N/A

Special Conditions for STA

STA: License Exception STA may not be used for ECCN 0A501.a, .b, .c, .d, or .e, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR). License Exception STA may not be used for any item in this entry to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) Firearms that are fully automatic, and magazines with a capacity of greater than 50 rounds, are “subject to the ITAR.” (2) See ECCN 0A502 for shotguns and their “parts” and “components” that are subject to the EAR. Also see ECCN 0A502 for shot-pistols. (3) See ECCN 0A504 and USML Category XII for controls on optical sighting devices.

Related Definitions: N/A

Items:

a. Non-automatic and semi-automatic firearms equal to .50 caliber (12.7 mm) or less.

Note 1 to paragraph 0A501.a: *'Combination pistols' are controlled under ECCN 0A501.a. A 'combination pistol' (a.k.a., a combination gun) has at least one rifled barrel and at least one smoothbore barrel (generally a shotgun style barrel).*

Technical Note to 0A501.a: *Firearms described in 0A501.a includes those chambered for the .50 BMG cartridge.*

b. Non-automatic and non-semi-automatic rifles, carbines, revolvers or pistols with a caliber greater than .50 inches (12.7 mm) but less than or equal to .72 inches (18.0 mm).

c. The following types of “parts” and “components” if “specially designed” for a commodity controlled by paragraph .a or .b of this entry, or USML Category I (unless listed in USML Category I(g) or (h)): Barrels, cylinders, barrel extensions, mounting blocks (trunnions), bolts, bolt carriers, operating rods, gas pistons, trigger housings, triggers, hammers/striker, sears, disconnectors, pistol grips that contain fire control “parts” or “components” (e.g., triggers, hammers/striker, sears, disconnectors) and buttstocks that contain fire control “parts” or “components.”

Technical Note to 0A501.c: Barrel blanks that have reached a stage in manufacturing in which they are either chambered or rifled are controlled by 0A501.c.

d. Detachable magazines with a capacity of 17 to 50 rounds “specially designed” for a commodity controlled by paragraph .a or .b of this entry.

Note 2 to paragraph 0A501.d: Magazines with a capacity of 16 rounds or less are controlled under 0A501.x; for magazines with a capacity greater than 50 rounds, see USML Category I.

e. Receivers (frames) and “complete breech mechanisms,” including castings, forgings, stampings, or machined items thereof, “specially designed” for a commodity controlled by paragraph .a or .b of this entry.

Note 3 to 0A501.e: Frames (receivers) under 0A501.e refers to any “part” or “component” of the firearm that has or is customarily marked with a serial number when required by law. This paragraph 0A501.e is synonymous with a “part” or “component” that is regulated by the Bureau of Alcohol, Tobacco, Firearms and Explosives (see 27 CFR parts 447, 478, and 479,) as a firearm.

f. through w. [Reserved]

x. “Parts” and “components” that are “specially designed” for a commodity classified under paragraphs .a through .c of this entry or the USML and not elsewhere specified on the USML or CCL.

y. Specific “parts,” “components,” “accessories” and “attachments” “specially designed” for a commodity subject to control in this ECCN or common to a defense article in USML Category I and not elsewhere specified in the USML or CCL as follows, and “parts,” “components,” “accessories,” and “attachments” “specially designed” therefor.

y.1. Stocks (including adjustable, collapsible, blades and braces), grips, handguards, or forends, that do not contain any fire control “parts” or “components” (e.g., triggers, hammers/striker, sears, disconnectors);

y.2 to y.5. [Reserved]

y.6. Bayonets; and

y.7. Firearms manufactured from 1890 to 1898 and reproductions thereof.

Technical Note 1 to 0A501: *The controls on “parts” and “components” in ECCN 0A501 include those “parts” and “components” that are common to firearms described in ECCN 0A501 and to those firearms “subject to the ITAR.”*

Technical Note 2 to 0A501: *A receiver with any other controlled “part” or “component” (e.g., a barrel (0A501.c), or trigger guard (0A501.x), or stock (0A501.y.1)) is still controlled under 0A501.e.*

Note 4 to 0A501: *Antique firearms (i.e., those manufactured before 1890) and reproductions thereof, muzzle loading and black powder firearms except those designs based on centerfire weapons of a post 1937 design, BB guns, pellet rifles, paint ball, and all other air rifles are EAR99 commodities.*

Note 5 to 0A501: *Muzzle loading and black powder firearms with a caliber less than 20 mm that were manufactured post 1937 that are used for hunting or sporting purposes that were not “specially designed” for military use and are not “subject to the ITAR” nor controlled as shotguns under ECCN 0A502 are EAR99 commodities.*

Note 6 to 0A501: *Scope mounts or accessory rails, iron sights, sling swivels, and butt plates or recoil pads are designated as EAR99. These commodities have been determined to no longer warrant being “specially designed” for purposes of ECCN 0A501.*

Note 7 to 0A501: *A kit, including a replacement or repair kit, of firearms “parts” or “components” customarily sold and exported together takes on the classification of the most restrictive “part” or “component” that is included in the kit. For example, a kit containing 0A501.y and .x “parts,” is controlled as a 0A501.x kit because the .x “part” is the most restrictive “part” included in the kit. A complete firearm disassembled in a kit form is controlled as a firearm under 0A501.a, .b, or .y.7.*

0A502 Shotguns; shotguns “parts” and “components,” consisting of complete trigger mechanisms; magazines and magazine extension tubes; “complete breech mechanisms;” except equipment used to slaughter domestic animals or used exclusively to treat or tranquilize animals, and except arms designed solely for signal, flare, or saluting use.

License Requirements

Reason for Control: RS, CC, FC, UN, AT, NS

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to shotguns with a barrel length less than 18 inches (45.72 cm)	NS Column 1
RS applies to shotguns with a barrel length less than 18 inches (45.72 cm)	RS Column 1
FC applies to entire entry	FC Column 1
CC applies to shotguns with a barrel length less than 24 in. (60.96 cm) and shotgun “components” controlled by this entry regardless of end user	CC Column 1
CC applies to shotguns with a barrel length greater than or equal to 24 in. (60.96 cm), regardless of end user	CC Column 2
CC applies to shotguns with a barrel length greater than or equal to 24 in. (60.96 cm) if for sale or resale to police or law enforcement	CC Column 3
UN applies to entire entry	See § 746.1(b) of the EAR for UN controls

Control(s)	Country Chart (See Supp. No. 1 to part 738)
AT applies to shotguns with a barrel length less than 18 inches (45.72 cm)	AT Column 1

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

LVS: \$500 for 0A502 shotgun “parts” and “components,” consisting of complete trigger mechanisms; magazines and magazine extension tubes. \$500 for 0A502 shotgun “parts” and “components,” consisting of complete trigger mechanisms; magazines and magazine extension tubes, “complete breech mechanisms” if the ultimate destination is Canada.

GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any Shotguns with barrel length less than 18 inches controlled in 0A502, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: Shotguns that are fully automatic are “subject to the ITAR.”

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

Note 1 to 0A502: Shotguns made in or before 1898 are considered antique shotguns and designated as EAR99.

Technical Note: Shot pistols or shotguns that have had the shoulder stock removed and a pistol grip attached are controlled by ECCN 0A502. Slug guns are also controlled under ECCN 0A502.

0A503 Discharge type arms; non-lethal or less-lethal grenades and projectiles, and “specially designed” “parts” and “components” of those projectiles; and devices to administer electric shock, for example, stun guns, shock batons, shock shields, electric cattle prods, immobilization guns and projectiles; except equipment used to slaughter domestic animals or used exclusively to treat or tranquilize animals, and except arms designed solely for signal, flare, or saluting use; and “specially designed” “parts” and “components,” n.e.s.

License Requirements

Reason for Control: CC, UN

Control(s)	Country Chart (See Supp. No. 1 to part 738)
CC applies to entire entry	A license is required for ALL destinations, except Canada, regardless of end use. Accordingly, a column specific to this control does not appear on the Commerce Country Chart. (See part 742 of the EAR for additional information)
UN applies to entire entry	See § 746.1(b) of the EAR for UN controls

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

LVS: N/A

GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any items in 0A503, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: Law enforcement restraint devices that administer an electric shock are controlled under ECCN 0A982. Electronic devices that monitor and report a person's location to

enforce restrictions on movement for law enforcement or penal reasons are controlled under ECCN 3A981.

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

* * * * *

0A981 Equipment designed for the execution of human beings as follows (see List of Items Controlled).

License Requirements

Reason for Control: CC

Control(s): CC applies to entire entry. A license is required for ALL destinations regardless of end-use. Accordingly, a column specific to this control does not appear on the Commerce Country Chart. (See § 742.7 of the EAR for additional information.)

List Based License Exceptions (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any items in 0A981, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: N/A

Related Definitions: N/A

Items:

- a. Gallows and guillotines.
- b. Electric chairs for the purpose of executing human beings.
- c. Air tight vaults designed for the execution of human beings by the administration of a lethal gas or substance.

d. Automatic drug injection systems designed for the execution of human beings by administration of a lethal substance.

0A982 Law enforcement restraint devices, including leg irons, shackles, and handcuffs; straight jackets; stun cuffs; shock belts; shock sleeves; multipoint restraint devices such as restraint chairs; and “specially designed” “parts,” “components” and “accessories,” n.e.s.

License Requirements

Reason for Control: CC

Control(s): CC applies to entire entry. A license is required for ALL destinations, except Canada, regardless of end-use. Accordingly, a column specific to this control does not appear on the Commerce Country Chart. (See part 742 of the EAR for additional information.)

List Based License Exceptions (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any items in 0A982, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: Thumbcuffs and handcuffs are classified under ECCN 0A983, “specially designed” implements of torture. Restraint devices that electronically monitor or report the location of confined persons for law enforcement or penal reasons are controlled under ECCN 3A981.

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

Note to ECCN 0A982. This ECCN applies to restraint devices used in law enforcement activities. It does not apply to medical devices that are equipped to restrain patient movement

during medical procedures. It does not apply to devices that confine memory impaired patients to appropriate medical facilities. It does not apply to safety equipment such as safety belts or child automobile safety seats.

0A983 “Specially designed” implements of torture, including thumbscrews, thumbcuffs, handcuffs, spiked batons, and “specially designed” “parts,” “components” and “accessories,” n.e.s.

License Requirements

Reason for Control: CC

Control(s): CC applies to entire entry. A license is required for ALL destinations, regardless of end-use. Accordingly, a column specific to this control does not appear on the Commerce Country Chart. (See part 742 of the EAR for additional information.)

List Based License Exceptions (See Part 740 for a description of all license exceptions)

LVS: N/A

GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any items in 0A983, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: N/A

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading

Note to ECCN 0A983. *In this ECCN, “torture” has the meaning set forth in Section 2340(1) of Title 18, United States Code.*

* * * * *

0E504 “Technology” “required” for the “development” or “production” of commodities controlled by 0A504 that incorporate a focal plane array or image intensifier tube.

License Requirements

Reason for Control: RS, UN, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
RS applies to entire entry	RS Column 1
UN applies to entire entry	See § 746.1(b) of the EAR for UN controls
AT applies to entire entry	AT Column 1

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: N/A

Special Conditions for STA

License Exception STA may not be used to ship or transmit any “technology” in 0E504, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: N/A

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

* * * * *

0E982 “Technology” exclusively for the “development” or “production” of equipment controlled by 0A982 or 0A503.

License Requirements

Reason for Control: CC

Control(s)
CC applies to “technology” for items controlled by 0A982 or 0A503. A license is required for ALL destinations, except Canada, regardless of end use. Accordingly, a column specific to this control does not appear on the Commerce Country Chart. (See part 742 of the EAR for additional information.)

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: N/A

Special Conditions for STA

License Exception STA may not be used to ship or transmit any “technology” in 0E982, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: N/A

Related Definitions: N/A

Items:

The list of items controlled is contained in the ECCN heading.

* * * * *

1C353 Genetic elements and genetically modified organisms, as follows (see List of Items Controlled).

License Requirements

Reason for Control: CB, AT

Control(s)	Country chart (See Supp. No. 1 to part 738)
CB applies to entire entry	CB Column 1.
AT applies to entire entry	AT Column 1.

License Requirements Notes:

1. Vaccines that contain genetic elements or genetically modified organisms identified in this ECCN are controlled by ECCN 1C991.

2. Unless specified elsewhere in this ECCN 1C353 (e.g., in License Requirement Note 1), this ECCN controls genetic elements or genetically modified organisms for all biological agents and “toxins,” regardless of quantity or attenuation, that are identified in the List of Items Controlled for this ECCN, including genetic elements or genetically modified organisms for attenuated strains of select biological agents or “toxins” that are excluded from the lists of select biological agents or “toxins” by the Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture, or the Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, in accordance with the APHIS regulations in 7 CFR part 331 and 9 CFR part 121 and the CDC regulations in 42 CFR part 73.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

LVS: N/A

GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any items in ECCN 1C353, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) The Animal and Plant Health Inspection Service (APHIS), U.S.

Department of Agriculture, and the Centers for Disease Control and Prevention (CDC), U.S.

Department of Health and Human Services, maintain controls on the possession, use, and

transfer within the United States of certain items controlled by this ECCN, including (but not

limited to) certain genetic elements, recombinant nucleic acids, and recombinant organisms

associated with the agents or toxins in ECCN 1C351 or 1C354 (for APHIS, see 7 CFR 331.3(c),

9 CFR 121.3(c), and 9 CFR 121.4(c); for CDC, see 42 CFR 73.3(c) and 42 CFR 73.4(c)). (2) See

22 CFR part 121, Category XIV(b), for modified biological agents and biologically derived substances that are subject to the export licensing jurisdiction of the U.S. Department of State, Directorate of Defense Trade Controls.

Related Definition: N/A

Items:

a. Any genetically modified organism that contains, or any genetic element that codes for, any of the following:

a.1. Any gene, genes, translated product or translated products specific to any virus controlled by 1C351.a or .b or 1C354.c;

a.2. Any gene or genes specific to any bacterium controlled by 1C351.c or 1C354.a, or any fungus controlled by 1C351.e or 1C354.b, and which;

a.2.a. In itself or through its transcribed or translated products represents a significant hazard to human, animal or plant health; *or*

a.2.b. Could endow or enhance pathogenicity; *or*

a.3. Any toxins, or their subunits, controlled by 1C351.d.

b. [Reserved].

Technical Notes:

1. Genetically modified organisms include organisms in which the nucleic acid sequences have been created or altered by deliberate molecular manipulation.

2. "Genetic elements" include, inter alia, chromosomes, genomes, plasmids, transposons, vectors, and inactivated organisms containing recoverable nucleic acid fragments, whether genetically modified or unmodified, or chemically synthesized in whole or in part. For the purposes of this ECCN 1C353, nucleic acids from an inactivated organism, virus, or sample are considered to be 'recoverable' if the inactivation and preparation of the material is intended or known to facilitate isolation, purification, amplification, detection, or identification of nucleic acids.

3. This ECCN does not control nucleic acid sequences of shiga toxin producing *Escherichia coli* of serogroups O26, O45, O103, O104, O111, O121, O145, O157, and other shiga toxin producing serogroups, other than those genetic elements coding for shiga toxin, or for its subunits.

4. 'Endow or enhance pathogenicity' is defined as when the insertion or integration of the nucleic acid sequence or sequences is/are likely to enable or increase a recipient organism's ability to be used to deliberately cause disease or death. This might include alterations to, *inter alia*: virulence, transmissibility, stability, route of infection, host range, reproducibility, ability to evade or suppress host immunity, resistance to medical countermeasures, or detectability.

* * * * *

1C354 Plant pathogens, as follows (see List of Items Controlled).

License Requirements

Reason for Control: CB, AT

Control(s)	Country chart (See Supp. No. 1 to part 738)
CB applies to entire entry	CB Column 1.
AT applies to entire entry	AT Column 1.

License Requirements Notes

1. All vaccines are excluded from the scope of this ECCN. See ECCN 1C991 for vaccines.

2. Unless specified elsewhere in this ECCN 1C354 (e.g., in License Requirement Note 1), this ECCN controls all biological agents, regardless of quantity or attenuation, that are identified in the List of Items Controlled for this ECCN, including small quantities or attenuated strains of select biological agents that are excluded from the list of PPQ select agents and “toxins” by the Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture, in accordance with their regulations in 7 CFR part 331.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

LVS: N/A

GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any items in ECCN 1C354, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) The Animal and Plant Health Inspection Service (APHIS), U.S.

Department of Agriculture, maintains controls on the possession, use, and transfer within the United States of certain items controlled by this ECCN (see 7 CFR 331.3(c), 9 CFR 121.3(c), and 9 CFR 121.4(c)). (2) See 22 CFR part 121, Category XIV(b), for modified biological agents and biologically derived substances that are subject to the export licensing jurisdiction of the U.S. Department of State, Directorate of Defense Trade Controls.

Related Definitions: N/A

Items:

a. Bacteria, as follows:

a.1. *Xanthomonas albilineans*;

a.2. *Xanthomonas citri* pv. *citri* (*Xanthomonas axonopodis* pv. *citri*, *Xanthomonas campestris* pv. *citri*);

a.3. *Xanthomonas oryzae* [this species of proteobacteria is identified on the APHIS “select agents” list (see Related Controls paragraph for this ECCN), but only the pathovar *Xanthomonas oryzae* pv. *oryzae* (syn. *Pseudomonas campestris* pv. *oryzae*) is identified on the Australia Group (AG) “List of Plant Pathogens for Export Control”];

a.4. *Clavibacter michiganensis* subsp. *sepedonicus* (*Clavibacter sepedonicus*, *Clavibacter michiganense* subsp. *sepedonicus*, *Corynebacterium michiganensis* subsp. *sepedonicum*, *Corynebacterium sepedonicum*);

a.5. *Ralstonia solanacearum*, race 3, biovar 2;

a.6. *Raythayibactor toxicus* [this bacterium is identified on the APHIS “select agents” list (see the Related Controls paragraph for this ECCN), but is not identified on the Australia Group (AG) “List of Plant Pathogens for Export Control”].

b. Fungi, as follows:

- b.1. *Bipolaris oryzae* (*Cochliobolus miyabeanus*, *Helminthosporium oryzae*);
- b.2. *Colletotrichum kahawae* (*Colletotrichum coffeanum* var. *virulans*);
- b.3. *Pseudocercospora ulei* (*Microcyclus ulei*, *Dothidella ulei*);
- b.4. *Puccinnia graminis* ssp. *graminis* var. *graminis*/*Puccinia graminis* ssp. *graminis* var. *stakmanii* (*Puccinia graminis* [syn. *Puccinia graminis* f. sp. *tritici*]);
- b.5. *Puccinia striiformis* (syn. *Puccinia glumarum*);
- b.6. *Magnaporthe oryzae* (*Pyricularia oryzae*);
- b.7. *Peronosclerospora philippinensis* (*Peronosclerospora sacchari*);
- b.8. *Sclerophthora rayssiae* var. *zeae*;
- b.9. *Synchytrium endobioticum*;
- b.10. *Tilletia indica*;
- b.11. *Thecaphora solani*;
- b.12. *Phoma glycinicola* (formerly *Pyrenochaeta glycines*) [this fungus is identified on the APHIS “select agents” list (see the Related Controls paragraph for this ECCN), but is not identified on the Australia Group (AG) “List of Plant Pathogens for Export Control”].

c. Viruses, as follows:

- c.1. Andean potato latent virus (Potato Andean latent tymovirus);
- c.2. Potato spindle tuber viroid.

1E001 “Technology” according to the General Technology Note for the “development” or “production” of items controlled by 1A002, 1A003, 1A004, 1A005, 1A006.b, 1A007, 1A008, 1A101, 1A231, 1B (except 1B608, 1B613 or 1B999), or 1C (except 1C355, 1C608, 1C980 to 1C984, 1C988, 1C990, 1C991, 1C995 to 1C999).

License Requirements

Reason for Control: NS, MT, NP, CB, RS, AT

Control(s)	Country chart (see supp. No. 1 to part 738)
NS applies to “technology” for items controlled by 1A002, 1A003, 1A005, 1A006.b, 1A007, 1B001 to 1B003, 1B018, 1C001 to 1C011, or 1C018	NS Column 1
NS applies to “technology” for items controlled by 1A004	NS Column 2
MT applies to “technology” for items controlled by 1A101, 1B001, 1B101, 1B102, 1B115 to 1B119, 1C001, 1C007, 1C011, 1C101, 1C102, 1C107, 1C111, 1C116, 1C117, or 1C118 for MT reasons	MT Column 1
NP applies to “technology” for items controlled by 1A002, 1A007, 1A231, 1B001, 1B101, 1B201, 1B225, 1B226, 1B228 to 1B234, 1C002, 1C010, 1C111, 1C116, 1C202, 1C210, 1C216, 1C225 to 1C237, or 1C239 to 1C241 for NP reasons	NP Column 1
CB applies to “technology” for items controlled by 1C351, 1C353, or 1C354	CB Column 1
CB applies to “technology” for materials controlled by 1C350 and for chemical detection systems and dedicated detectors therefor, in 1A004.c, that also have the technical characteristics described in 2B351.a	CB Column 2
RS applies to technology for equipment controlled in 1A004.d	RS Column 2
AT applies to entire entry	AT Column 1

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: Yes, except for the following:

- (1) Items controlled for MT reasons; or
- (2) Exports and reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of “technology” for the “development” or “production” of the following:
 - (a) Items controlled by 1C001; or
 - (b) Items controlled by 1A002.a which are composite structures or laminates having an organic “matrix” and being made from materials listed under 1C010.c or 1C010.d.

Special Conditions for STA

License Exception STA may not be used to ship or transmit ECCN 1E001 “technology” for the “development” or “production” of items specified in ECCNs 1A002; 1C001; 1C007.c or .d; 1C008.a.1; 1C009.b; 1C010.b, .c or .d; 1C351.a, .b, .c, .d.11, .d.12, .d.14, .d.15, or .e; 1C353; or 1C354, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR). License Exception STA may not be used to ship or transmit “technology” according to the General Technology Note for the “development” or “production” of equipment and materials specified by ECCN 1C012 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls (1) Also see ECCNs 1E101, 1E201, and 1E202. (2) See ECCN 1E608 for “technology” for items classified under ECCN 1B608 or 1C608 that, immediately prior to July 1, 2014, were classified under ECCN 1B018.a or 1C018.b through .m (note that ECCN 1E001 controls “development” and “production” “technology” for chlorine trifluoride controlled by ECCN 1C111.a.3.f—see ECCN 1E101 for controls on “use” “technology” for chlorine trifluoride). (3) See ECCN 1E002.g for control libraries (parametric technical databases) “specially designed” or modified to enable equipment to perform the functions of equipment

controlled under ECCN 1A004.c (Nuclear, biological and chemical (NBC) detection systems) or ECCN 1A004.d (Equipment for detecting or identifying explosives residues). (4) “Technology” for lithium isotope separation (see related ECCN 1B233) and “technology” for items described in ECCN 1C012 are subject to the export licensing authority of the Department of Energy (see 10 CFR part 810). (5) “Technology” for items described in ECCN 1A102 is “subject to the ITAR” (see 22 CFR parts 120 through 130).

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

* * * * *

1E351 “Technology” according to the General Technology Note for the disposal of chemicals or microbiological materials controlled by 1C350, 1C351, 1C353, or 1C354.

License Requirements

Reason for Control: CB, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
CB applies to “technology” for items controlled by 1C351, 1C353, or 1C354	CB Column 1.
CB applies to “technology” for the disposal of items controlled by 1C350	CB Column 2.
AT applies to entire entry	AT Column 1.

List Based License Exceptions (See Part 740 for a description of all license exceptions)

TSR: N/A

License Exception STA may not be used to ship or transmit “technology,” as specified in ECCN 1E351, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: N/A

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

* * * * *

2E003 Other “technology”, as follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, AT

Control(s)	Country chart (see supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: Yes, except 2E003.b, .e and .f

Special Conditions for STA

License Exception STA may not be used to ship or transmit any “technology” according to the General Technology Note for 2E003.f when used for the application of inorganic overlay coatings on gas turbine engine combustors, or turbine blades, vanes or “tip shrouds,” to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: See 2E001, 2E002, and 2E101 for “development” and “use” technology for equipment that are designed or modified for densification of carbon-carbon composites, structural composite rocket nozzles and reentry vehicle nose tips.

Related Definitions: N/A

Items:

a. [Reserved]

b. “Technology” for metal-working manufacturing processes, as follows:

b.1. “Technology” for the design of tools, dies or fixtures “specially designed” for any of the following processes:

b.1.a. “Superplastic forming”;

b.1.b. “Diffusion bonding”; *or*

b.1.c. 'Direct-acting hydraulic pressing';

b.2. [Reserved]

***N.B.:** For “technology” for metal-working manufacturing processes for gas turbine engines and components, see 9E003 and USML Category XIX*

***Technical Note:** For the purposes of 2E003.b.1.c, 'direct-acting hydraulic pressing' is a deformation process which uses a fluid-filled flexible bladder in direct contact with the workpiece.*

c. “Technology” for the “development” or “production” of hydraulic stretch-forming machines and dies therefor, for the manufacture of airframe structures;

d. [Reserved]

e. “Technology” for the “development” of integration “software” for incorporation of expert systems for advanced decision support of shop floor operations into “numerical control” units;

f. “Technology” for the application of inorganic overlay coatings or inorganic surface modification coatings (specified in column 3 of the following table) to non-electronic substrates

(specified in column 2 of the following table), by processes specified in column 1 of the following table and defined in the Technical Note.

***N.B.** This table should be read to control the technology of a particular 'Coating Process' only when the resultant coating in column 3 is in a paragraph directly across from the relevant 'Substrate' under column 2. For example, Chemical Vapor Deposition (CVD) 'coating process' control the “technology” for a particular application of 'silicides' to 'Carbon-carbon, Ceramic and Metal “matrix” “composites” substrates, but are not controlled for the application of 'silicides' to 'Cemented tungsten carbide (16), Silicon carbide (18)' substrates. In the second case, the resultant coating is not listed in the paragraph under column 3 directly across from the paragraph under column 2 listing 'Cemented tungsten carbide (16), Silicon carbide (18)'.*

* * * * *

3E001 “Technology” according to the General Technology Note for the “development” or “production” of commodities controlled by 3A (except 3A980, 3A981, 3A991, 3A992, or 3A999), 3B (except 3B991 or 3B992) or 3C (except 3C992).

License Requirements

Reason for Control: NS, MT, NP, RS, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to “technology” for commodities controlled by 3A001, 3A002, 3A003, 3B001, 3B002, or 3C001 to 3C006	NS Column 1
MT applies to “technology” for commodities controlled by 3A001 or 3A101 for MT reasons	MT Column 1
NP applies to “technology” for commodities controlled by 3A001, 3A201, or 3A225 to 3A234 for NP reasons	NP Column 1

Control(s)	Country chart (see Supp. No. 1 to part 738)
RS applies to “technology” for commodities controlled by 3A090 or 3B090 or “software” specified by 3D001 (for 3A090 or 3B090 commodities)	China and Macau (See § 742.6(a)(6))
RS applies to “technology” for commodities controlled in 3A090, when exported from China or Macau	Worldwide (See § 742.6(a)(6))
AT applies to entire entry	AT Column 1

License Requirements Note: See § 744.17 of the EAR for additional license requirements for microprocessors having a processing speed of 5 GFLOPS or more and an arithmetic logic unit with an access width of 32 bit or more, including those incorporating “information security” functionality, and associated “software” and “technology” for the “production” or “development” of such microprocessors.

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, Special Comprehensive Licenses, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: Yes, except N/A for MT, and “technology” for the “development” or “production” of: (a) vacuum electronic device amplifiers described in 3A001.b.8, having operating frequencies exceeding 19 GHz; (b) solar cells, coverglass-interconnect-cells or covered-interconnect-cells (CIC) “assemblies”, solar arrays and/or solar panels described in 3A001.e.4; (c) “Monolithic Microwave Integrated Circuit” (“MMIC”) amplifiers in 3A001.b.2; and (d) discrete microwave transistors in 3A001.b.3.

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit “technology,” as specified in ECCN 3E001 for the “production” or “development” of commodities controlled by 3A001.b.2 or b.3, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR). License Exception STA may not be used to ship or transmit “technology” according to the General Technology Note for the “development” or “production” of equipment specified by ECCNs 3A002.g.1 or 3B001.a.2 to any of the destinations listed in Country Group A:6 (See Supplement No. 1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) “Technology” according to the General Technology Note for the “development” or “production” of certain “space-qualified” atomic frequency standards described in Category XV(e)(9), MMICs described in Category XV(e)(14), and oscillators described in Category XV(e)(15) of the USML are “subject to the ITAR” (see 22 CFR parts 120 through 130). See also 3E101, 3E201 and 9E515. (2) “Technology” for “development” or “production” of “Microwave Monolithic Integrated Circuits” (“MMIC”) amplifiers in 3A001.b.2 is controlled in this ECCN 3E001; 5E001.d refers only to that additional “technology” “required” for telecommunications.

Related Definition: N/A

Items: The list of items controlled is contained in the ECCN heading.

Note 1: *3E001 does not control “technology” for equipment or “components” controlled by 3A003.*

Note 2: *3E001 does not control “technology” for integrated circuits controlled by 3A001.a.3 to a.14, having all of the following:*

(a) Using “technology” at or above 0.130 μ ; and

(b) Incorporating multi-layer structures with three or fewer metal layers.

Note 3: 3E001 does not apply to 'Process Design Kits' ('PDKs') unless they include libraries implementing functions or technologies for items specified by 3A001.

Technical Note: A 'Process Design Kit' ('PDK') is a software tool provided by a semiconductor manufacturer to ensure that the required design practices and rules are taken into account in order to successfully produce a specific integrated circuit design in a specific semiconductor process, in accordance with technological and manufacturing constraints (each semiconductor manufacturing process has its particular 'PDK').

* * * * *

6A002 Optical Sensors and Equipment, and “Components” Therefor, as Follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, MT, CC, RS, AT, UN

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 2
MT applies to optical detectors in 6A002.a.1, or a.3 that are “specially designed” or modified to protect “missiles” against nuclear effects (<i>e.g.</i> , Electromagnetic Pulse (EMP), X-rays, combined blast and thermal effects), and usable for “missiles”	MT Column 1
RS applies to 6A002.a.1, a.2, a.3 (except a.3.d.2.a and a.3.e for lead selenide based focal plane arrays (FPAs)), .c, and .f	RS Column 1
CC applies to police-model infrared viewers in 6A002.c	CC Column 1

Control(s)	Country chart (see Supp. No. 1 to part 738)
AT applies to entire entry	AT Column 1
UN applies to 6A002.a.1, a.2, a.3 and .c	See § 746.1(b) for UN controls

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

LVS: \$500 for 6A002.f.

\$3,000; except N/A for MT and for 6A002.a.1, a.2, a.3, .c, and .f.

GBS: N/A

Special Conditions for STA

License Exception STA may not be used to ship any items in ECCN 6A002, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) See USML Category XII(e) for infrared focal plane arrays, image intensifier tubes, and related parts and components, subject to the ITAR. (2) See USML Category XV(e) for space-qualified focal plane arrays subject to the ITAR. (3) See also ECCNs 6A102, 6A202, and 6A992. (4) See ECCN 0A919 for foreign-made military commodities that incorporate commodities described in 6A002. (5) Section 744.9 imposes a license requirement on commodities described in ECCN 6A002 if being exported, reexported, or transferred (in-

country) for use by a military end-user or for incorporation into an item controlled by ECCN 0A919. (6) See USML Categories XII(e) and XV(e)(3) for read-out integrated circuits “subject to the ITAR.” (7) See 6B002 for masks and reticles, “specially designed” for optical sensors specified by 6A002.a.1.b or 6A002.a.1.d.

Related Definitions: N/A

Items:

a. Optical detectors as follows:

a.1. “Space-qualified” solid-state detectors as follows:

Note: *For the purpose of 6A002.a.1, solid-state detectors include “focal plane arrays”.*

a.1.a. “Space-qualified” solid-state detectors having all of the following:

a.1.a.1. A peak response in the wavelength range exceeding 10 nm but not exceeding 300 nm; *and*

a.1.a.2. A response of less than 0.1% relative to the peak response at a wavelength exceeding 400 nm;

a.1.b. “Space-qualified” solid-state detectors having all of the following:

a.1.b.1. A peak response in the wavelength range exceeding 900 nm but not exceeding 1,200 nm; *and*

a.1.b.2. A response “time constant” of 95 ns or less;

a.1.c. “Space-qualified” solid-state detectors having a peak response in the wavelength range exceeding 1,200 nm but not exceeding 30,000 nm;

a.1.d. “Space-qualified” “focal plane arrays” having more than 2,048 elements per array and having a peak response in the wavelength range exceeding 300 nm but not exceeding 900 nm;

a.2. Image intensifier tubes and “specially designed” “components” therefor, as follows:

Note: *6A002.a.2 does not control non-imaging photomultiplier tubes having an electron sensing device in the vacuum space limited solely to any of the following:*

a. A single metal anode; or

b. Metal anodes with a center to center spacing greater than 500 μm .

Technical Note: *'Charge multiplication' is a form of electronic image amplification and is defined as the generation of charge carriers as a result of an impact ionization gain process. 'Charge multiplication' sensors may take the form of an image intensifier tube, solid state detector or "focal plane array".*

a.2.a. Image intensifier tubes having all of the following:

a.2.a.1. A peak response in the wavelength range exceeding 400 nm but not exceeding 1,050 nm;

a.2.a.2. Electron image amplification using any of the following:

a.2.a.2.a. A microchannel plate with a hole pitch (center-to-center spacing) of 12 μm or less; *or*

a.2.a.2.b. An electron sensing device with a non-binned pixel pitch of 500 μm or less, "specially designed" or modified to achieve 'charge multiplication' other than by a microchannel plate; *and*

a.2.a.3. Any of the following photocathodes:

a.2.a.3.a. Multialkali photocathodes (*e.g.*, S-20 and S-25) having a luminous sensitivity exceeding 350 $\mu\text{A}/\text{lm}$;

a.2.a.3.b. GaAs or GaInAs photocathodes; *or*

a.2.a.3.c. Other "III-V compound" semiconductor photocathodes having a maximum "radiant sensitivity" exceeding 10 mA/W ;

a.2.b. Image intensifier tubes having all of the following:

a.2.b.1. A peak response in the wavelength range exceeding 1,050 nm but not exceeding 1,800 nm;

a.2.b.2. Electron image amplification using any of the following:

a.2.b.2.a. A microchannel plate with a hole pitch (center-to-center spacing) of 12 μm or less; *or*

a.2.b.2.b. An electron sensing device with a non-binned pixel pitch of 500 μm or less, “specially designed” or modified to achieve 'charge multiplication' other than by a microchannel plate; *and*

a.2.b.3. “III/V compound” semiconductor (*e.g.*, GaAs or GaInAs) photocathodes and transferred electron photocathodes, having a maximum “radiant sensitivity” exceeding 15 mA/W;

a.2.c. “Specially designed” “components” as follows:

a.2.c.1. Microchannel plates having a hole pitch (center-to-center spacing) of 12 μm or less;

a.2.c.2. An electron sensing device with a non-binned pixel pitch of 500 μm or less, “specially designed” or modified to achieve 'charge multiplication' other than by a microchannel plate;

a.2.c.3. “III–V compound” semiconductor (*e.g.*, GaAs or GaInAs) photocathodes and transferred electron photocathodes;

Note: 6A002.a.2.c.3 does not control compound semiconductor photocathodes designed to achieve a maximum “radiant sensitivity” of any of the following:

a. 10 mA/W or less at the peak response in the wavelength range exceeding 400 nm but not exceeding 1,050 nm; *or*

b. 15 mA/W or less at the peak response in the wavelength range exceeding 1,050 nm but not exceeding 1,800 nm.

a.3. Non-“space-qualified” “focal plane arrays” as follows:

N.B.: 'Microbolometer' non-“space-qualified” “focal plane arrays” are only specified by 6A002.a.3.f.

Technical Note: Linear or two-dimensional multi-element detector arrays are referred to as “focal plane arrays”;

Note 1: 6A002.a.3 includes photoconductive arrays and photovoltaic arrays.

Note 2: 6A002.a.3 does not control:

a. Multi-element (not to exceed 16 elements) encapsulated photoconductive cells using either lead sulphide or lead selenide;

b. Pyroelectric detectors using any of the following:

b.1. Triglycine sulphate and variants;

b.2. Lead-lanthanum-zirconium titanate and variants;

b.3. Lithium tantalate;

b.4. Polyvinylidene fluoride and variants; or

b.5. Strontium barium niobate and variants.

c. “Focal plane arrays” “specially designed” or modified to achieve ‘charge multiplication’ and limited by design to have a maximum “radiant sensitivity” of 10 mA/W or less for wavelengths exceeding 760 nm, having all of the following:

c.1. Incorporating a response limiting mechanism designed not to be removed or modified; and

c.2. Any of the following:

c.2.a. The response limiting mechanism is integral to or combined with the detector element; or

c.2.b. The “focal plane array” is only operable with the response limiting mechanism in place.

d. Thermopile arrays having less than 5,130 elements;

Technical Note: A response limiting mechanism integral to the detector element is designed not to be removed or modified without rendering the detector inoperable.

a.3.a. Non-“space-qualified” “focal plane arrays” having all of the following:

a.3.a.1. Individual elements with a peak response within the wavelength range exceeding 900 nm but not exceeding 1,050 nm; *and*

a.3.a.2. Any of the following:

a.3.a.2.a. A response “time constant” of less than 0.5 ns; *or*

a.3.a.2.b. “Specially designed” or modified to achieve 'charge multiplication' and having a maximum “radiant sensitivity” exceeding 10 mA/W;

a.3.b. Non-“space-qualified” “focal plane arrays” having all of the following:

a.3.b.1. Individual elements with a peak response in the wavelength range exceeding 1,050 nm but not exceeding 1,200 nm; *and*

a.3.b.2. Any of the following:

a.3.b.2.a. A response “time constant” of 95 ns or less; *or*

a.3.b.2.b. “Specially designed” or modified to achieve 'charge multiplication' and having a maximum “radiant sensitivity” exceeding 10 mA/W;

a.3.c. Non-“space-qualified” non-linear (2-dimensional) “focal plane arrays” having individual elements with a peak response in the wavelength range exceeding 1,200 nm but not exceeding 30,000 nm;

N.B.: Silicon and other material based 'microbolometer' non-“space-qualified” “focal plane arrays” are only specified by 6A002.a.3.f.

a.3.d. Non-“space-qualified” linear (1-dimensional) “focal plane arrays” having all of the following:

a.3.d.1. Individual elements with a peak response in the wavelength range exceeding 1,200 nm but not exceeding 3,000 nm; *and*

a.3.d.2. Any of the following:

a.3.d.2.a. A ratio of 'scan direction' dimension of the detector element to the 'cross-scan direction' dimension of the detector element of less than 3.8; *or*

a.3.d.2.b. Signal processing in the detector elements;

***Note:** 6A002.a.3.d does not control “focal plane arrays” (not to exceed 32 elements) having detector elements limited solely to germanium material.*

***Technical Note:** For the purposes of 6A002.a.3.d, 'cross-scan direction' is defined as the axis parallel to the linear array of detector elements and the 'scan direction' is defined as the axis perpendicular to the linear array of detector elements.*

a.3.e. Non-“space-qualified” linear (1-dimensional) “focal plane arrays” having individual elements with a peak response in the wavelength range exceeding 3,000 nm but not exceeding 30,000 nm;

a.3.f. Non-“space-qualified” non-linear (2-dimensional) infrared “focal plane arrays” based on 'microbolometer' material having individual elements with an unfiltered response in the wavelength range equal to or exceeding 8,000 nm but not exceeding 14,000 nm;

***Technical Note:** For the purposes of 6A002.a.3.f, 'microbolometer' is defined as a thermal imaging detector that, as a result of a temperature change in the detector caused by the absorption of infrared radiation, is used to generate any usable signal.*

a.3.g. Non-“space-qualified” “focal plane arrays” having all of the following:

a.3.g.1. Individual detector elements with a peak response in the wavelength range exceeding 400 nm but not exceeding 900 nm;

a.3.g.2. “Specially designed” or modified to achieve 'charge multiplication' and having a maximum “radiant sensitivity” exceeding 10 mA/W for wavelengths exceeding 760 nm; and

a.3.g.3. Greater than 32 elements;

b. “Monospectral imaging sensors” and “multispectral imaging sensors”, designed for remote sensing applications and having any of the following:

b.1. An Instantaneous-Field-Of-View (IFOV) of less than 200 μ rad (microradians); or

b.2. Specified for operation in the wavelength range exceeding 400 nm but not exceeding 30,000 nm and having all the following:

b.2.a. Providing output imaging data in digital format; *and*

b.2.b. Having any of the following characteristics:

b.2.b.1. “Space-qualified”; *or*

b.2.b.2. Designed for airborne operation, using other than silicon detectors, and having an IFOV of less than 2.5 mrad (milliradians);

Note: 6A002.b.1 does not control “monospectral imaging sensors” with a peak response in the wavelength range exceeding 300 nm but not exceeding 900 nm and only incorporating any of the following non-“space-qualified” detectors or non-“space-qualified” “focal plane arrays”:

a. Charge Coupled Devices (CCD) not designed or modified to achieve 'charge multiplication'; *or*

b. Complementary Metal Oxide Semiconductor (CMOS) devices not designed or modified to achieve 'charge multiplication'.

c. 'Direct view' imaging equipment incorporating any of the following:

c.1. Image intensifier tubes having the characteristics listed in 6A002.a.2.a or 6A002.a.2.b;

c.2. “Focal plane arrays” having the characteristics listed in 6A002.a.3; *or*

c.3. Solid state detectors specified by 6A002.a.1;

Technical Note: 'Direct view' refers to imaging equipment that presents a visual image to a human observer without converting the image into an electronic signal for television display, and that cannot record or store the image photographically, electronically or by any other means.

Note: 6A002.c does not control equipment as follows, when incorporating other than GaAs or GaInAs photocathodes:

a. Industrial or civilian intrusion alarm, traffic or industrial movement control or counting systems;

b. Medical equipment;

c. Industrial equipment used for inspection, sorting or analysis of the properties of materials;

d. Flame detectors for industrial furnaces;

e. Equipment “specially designed” for laboratory use.

d. Special support “components” for optical sensors, as follows:

d.1. “Space-qualified” cryocoolers;

d.2. Non-“space-qualified” cryocoolers having a cooling source temperature below 218 K (−55 °C), as follows:

d.2.a. Closed cycle type with a specified Mean-Time-To-Failure (MTTF) or Mean-Time-Between-Failures (MTBF), exceeding 2,500 hours;

d.2.b. Joule-Thomson (JT) self-regulating minicoolers having bore (outside) diameters of less than 8 mm;

d.3. Optical sensing fibers specially fabricated either compositionally or structurally, or modified by coating, to be acoustically, thermally, inertially, electromagnetically or nuclear radiation sensitive.

Note: 6A002.d.3 does not apply to encapsulated optical sensing fibers “specially designed” for bore hole sensing applications.

e. [Reserved]

f. 'Read-Out Integrated Circuits' ('ROIC') “specially designed” for “focal plane arrays” specified by 6A002.a.3.

Note: 6A002.f does not apply to read-out integrated circuits “specially designed” for civil automotive applications.

Technical Note: A 'Read-Out Integrated Circuit' ('ROIC') is an integrated circuit designed to underlie or be bonded to a “focal plane array” (“FPA”) and used to read-out (i.e., extract and register) signals produced by the detector elements. At a minimum the 'ROIC' reads the charge from the detector elements by extracting the charge and applying a multiplexing function in a manner that retains the relative spatial position and orientation information of the detector elements for processing inside or outside the 'ROIC'.

* * * * *

6D002 “Software” “specially designed” for the “use” of equipment controlled by 6A002.b, 6A008, or 6B008.

License Requirements

Reason for Control: NS, MT, RS, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1.
MT applies to “software” for equipment controlled by 6A008 or 6B008 for MT reasons	MT Column 1.
RS applies to “software” for equipment controlled by 6A008.j.1	RS Column 1.
AT applies to entire entry	AT Column 1.

List Based License Exceptions (See Part 740 for a description of all license exceptions)

TSR: Yes, except N/A for the following: (1) Items controlled for MT reasons; (2) “Software” “specially designed” for the “use” of “space qualified” “laser” radar or Light Detection and Ranging (LIDAR) equipment defined in 6A008.j.1; or (3) “Software” “specially designed” for the “use” of commodities controlled by 6A002.b.

Special Conditions for STA

License Exception STA may not be used to ship or transmit any software under 6D002, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) “Software” “specially designed” for the “use” of “space-qualified” LIDAR “equipment” “specially designed” for surveying or for meteorological observation, released from control under the note in 6A008.j, is controlled in 6D991. (2) See also ECCNs 6D102, 6D991, and 6D992.

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

6D003 Other “software” as follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, RS, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1.
RS applies to paragraph c	RS Column 1.
AT applies to entire entry	AT Column 1.

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: Yes, except for 6D003.c and exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of “software” for items controlled by 6D003.a.

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit any software in ECCN 6D003.c, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR). License Exception STA may not be used to ship or transmit software in 6D003.a to any of the destinations listed in Country Group A:6 (See Supplement No. 1 to part 740 of the EAR).

List of Items Controlled

Related Controls: See also ECCNs 6D103, 6D991, and 6D993.

Related Definitions: N/A

Items:

Acoustics

a. “Software” as follows:

a.1. “Software” “specially designed” for acoustic beam forming for the “real-time processing” of acoustic data for passive reception using towed hydrophone arrays;

a.2. “Source code” for the “real-time processing” of acoustic data for passive reception using towed hydrophone arrays;

a.3. “Software” “specially designed” for acoustic beam forming for the “real-time processing” of acoustic data for passive reception using bottom or bay cable systems;

a.4. “Source code” for the “real-time processing” of acoustic data for passive reception using bottom or bay cable systems;

a.5. “Software” or “source code”, “specially designed” for all of the following:

a.5.a. “Real-time processing” of acoustic data from sonar systems controlled by

6A001.a.1.e; *and*

a.5.b. Automatically detecting, classifying and determining the location of divers or swimmers;

N.B.: For diver detection “software” or “source code”, “specially designed” or modified for military use, see the U.S. Munitions List of the International Traffic in Arms Regulations (ITAR) (22 CFR part 121).

b. Optical sensors. None.

Cameras

c. “Software” designed or modified for cameras incorporating “focal plane arrays” specified by 6A002.a.3.f and designed or modified to remove a frame rate restriction and allow the camera to exceed the frame rate specified in 6A003.b.4 Note 3.a;

Optics

d. “Software” specially designed to maintain the alignment and phasing of segmented mirror systems consisting of mirror segments having a diameter or major axis length equal to or larger than 1 m;

e. Lasers. None.

Magnetic and Electric Field Sensors

f. “Software” as follows:

f.1. “Software” “specially designed” for magnetic and electric field “compensation systems” for magnetic sensors designed to operate on mobile platforms;

f.2. “Software” “specially designed” for magnetic and electric field anomaly detection on mobile platforms;

f.3. “Software” “specially designed” for “real-time processing” of electromagnetic data using underwater electromagnetic receivers specified by 6A006.e;

f.4. “Source code” for “real-time processing” of electromagnetic data using underwater electromagnetic receivers specified by 6A006.e;

Gravimeters

g. “Software” “specially designed” to correct motional influences of gravity meters or gravity gradiometers;

Radar

h. “Software” as follows:

h.1. Air Traffic Control (ATC) “software” designed to be hosted on general purpose computers located at Air Traffic Control centers and capable of accepting radar target data from more than four primary radars;

h.2. “Software” for the design or “production” of radomes having all of the following:

h.2.a. “Specially designed” to protect the “electronically scanned array antennae” specified by 6A008.e; *and*

h.2.b. Resulting in an antenna pattern having an 'average side lobe level' more than 40 dB below the peak of the main beam level.

***Technical Note:** 'Average side lobe level' in 6D003.h.2.b is measured over the entire array excluding the angular extent of the main beam and the first two side lobes on either side of the main beam.*

* * * * *

6D991 “Software,” n.e.s., “specially designed” for the “development”, “production”, or “use” of commodities controlled by 6A002, 6A003, 6A991, 6A996, 6A997, or 6A998.

License Requirements

Reason for Control: RS, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
RS applies to “software” for commodities controlled by 6A002, 6A003, or 6A998.b	RS Column 1
RS applies to “software” for commodities controlled by 6A998.c	RS Column 2
AT applies to entire entry, except “software” for commodities controlled by 6A991	AT Column 1
AT applies to “software” for commodities controlled by 6A991	AT Column 2

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: N/A

Special Conditions for STA

License Exception STA may not be used to ship or transmit any “software” in ECCN 6D991 “specially designed” for the “development,” “production,” or “use” of commodities controlled under 6A002 or 6A003, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) See ECCN 6D002 for “software” “specially designed” for the “use” of commodities controlled under ECCN 6A002.b. (2) See ECCN 6D003.c for “software” “specially designed” for cameras incorporating “focal plane arrays” specified by 6A002.a.3.f and “specially designed” to remove a frame rate restriction and allow the camera to exceed the frame rate specified in 6A003.b.4 Note 3.a.

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

* * * * *

6E001 “Technology” According to the General Technology Note for the “Development” of Equipment, Materials or “Software” Controlled by 6A (Except 6A991, 6A992, 6A994, 6A995, 6A996, 6A997, 6A998, or 6A999.c), 6B (Except 6B995), 6C (Except 6C992 or 6C994), or 6D (Except 6D991, 6D992, or 6D993).

License Requirements

Reason for Control: NS, MT, NP, RS, CC, AT, UN

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to “technology” for items controlled by 6A001 to 6A008, 6B002 to 6B008, 6C002 to 6C005, or 6D001 to 6D003	NS Column 1
MT applies to “technology” for items controlled by 6A002, 6A007, 6A008, 6A102, 6A107, 6A108, 6B008, 6B108, 6D001, 6D002, 6D102 or 6D103 for MT reasons	MT Column 1
NP applies to “technology” for items controlled by 6A003, 6A005, 6A202, 6A203, 6A205, 6A225, 6A226, 6D001, or 6D201 for NP reasons	NP Column 1
RS applies to “technology” for items controlled by 6A002.a.1, .a.2, .a.3, .c, or .f, 6A003.b.3 or .b.4, or 6A008.j.1	RS Column 1
CC applies to “technology” for equipment controlled by 6A002 for CC reasons	CC Column 1
AT applies to entire entry	AT Column 1
UN applies to “technology” for equipment controlled by 6A002 or 6A003 for UN reasons	See § 746.1(b) for UN controls

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: Yes, except for the following: (1) Items controlled for MT reasons; (2) “Technology” for commodities controlled by 6A002, 6A004.e or 6A008.j.1; (3) “Technology” for 6A003 cameras, unless for “technology” for the integration of 6A003 cameras into camera systems “specially designed” for civil automotive applications; (4) “Technology” for “software” “specially designed” for “space qualified” “laser” radar or Light Detection and Ranging (LIDAR) equipment defined in 6A008.j.1 and controlled by 6D001 or 6D002; or (5) Exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of “technology” for the “development” of the following: (a) Items controlled by 6A001.a.1.b, 6A001.a.1.e, 6A001.a.2.a.1, 6A001.a.2.a.2, 6A001.a.2.a.3, 6A001.a.2.a.5, 6A001.a.2.a.6, 6A001.a.2.b, 6A001.a.2.d, 6A001.a.2.e., 6A004.c, 6A004.d, 6A006.a.2, 6A006.c.1, 6A006.d, 6A006.e, 6A008.d, 6A008.h, 6A008.k, 6B008, or 6D003.a; (b) Equipment controlled by 6A001.a.2.c or 6A001.a.2.f when “specially designed” for real time applications; or (c) “Software” controlled by 6D001 and “specially designed” for the “development” or “production” of equipment controlled by 6B008, or 6D003.a.

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit any “technology” in ECCN 6E001 for the “development” of commodities controlled under ECCNs 6A002 or 6A003, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR). License Exception STA may not be used to ship or transmit any technology in this entry to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) Technical data directly related to satellites and all other items described in USML Category XV are subject to the ITAR under USML Category XV(f). (2) Technical data directly related to laser systems, infrared imaging systems, and all other items described in USML Category XII are subject to the ITAR under USML Category XII(f). (3) Technical data directly related to read-out integrated circuits described in USML Categories XII(e) or XV(e)(3) is subject to the ITAR under USML Categories XII(f) or XV(f), respectively. (4) See also 6E101, 6E201, and 6E991.

Related Definitions: N/A

Items:

The list of items controlled is contained in the ECCN heading.

6E002 “Technology” According to the General Technology Note for the “Production” of Equipment or Materials Controlled by 6A (Except 6A991, 6A992, 6A994, 6A995, 6A996, 6A997, 6A998 or 6A999.c), 6B (Except 6B995) or 6C (except 6C992 or 6C994).

License Requirements

Reason for Control: NS, MT, NP, RS, CC, AT, UN

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to “technology” for equipment controlled by 6A001 to 6A008, 6B002 to 6B008, or 6C002 to 6C005	NS Column 1
MT applies to “technology” for equipment controlled by 6A002, 6A007, 6A008, 6A102, 6A107, 6A108, 6B008, or 6B108 for MT reasons	MT Column 1
NP applies to “technology” for items controlled by 6A003, 6A005, 6A202, 6A203, 6A205, 6A225 or 6A226 for NP reasons	NP Column 1

Control(s)	Country chart (see Supp. No. 1 to part 738)
RS applies to “technology” for items controlled by 6A002.a.1, .a.2, .a.3, .c, or .f, 6A003.b.3 or .b.4, or 6A008.j.1	RS Column 1
CC applies to “technology” for equipment controlled by 6A002 for CC reasons	CC Column 1
AT applies to entire entry	AT Column 1
UN applies to “technology” for equipment controlled by 6A002 or 6A003 for UN reasons	See § 746.1(b) for UN controls

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: Yes, except for the following:

- (1) Items controlled for MT reasons;
- (2) “Technology” for commodities controlled by 6A002, 6A004.e, or 6A008.j.1;
- (3) “Technology” for 6A003 cameras, unless for “technology” for the integration of 6A003 cameras into camera systems “specially designed” for civil automotive applications ; or
- (4) Exports or reexports to destinations outside of those countries listed in Country Group A:5 (See Supplement No. 1 to part 740 of the EAR) of “technology” for the “production” of the following: (a) Items controlled by 6A001.a.1.b, 6A001.a.1.e, 6A001.a.2.a.1, 6A001.a.2.a.2, 6A001.a.2.a.3, 6A001.a.2.a.5, 6A001.a.2.a.6, 6A001.a.2.b, 6A004.c, 6A004.d, 6A006.a.2, 6A006.c.1, 6A006.d, 6A006.e, 6A008.d, 6A008.h, 6A008.k, or 6B008; and (b) Items controlled by 6A001.a.2.c or 6A001.a.2.f when “specially designed” for real time applications.

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit any “technology” in ECCN 6E002 for the “production” of commodities controlled under ECCNs 6A002 or 6A003, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR). License Exception STA may not be used to ship or transmit “technology” according to the General Technology Note for the “production” of equipment specified in the STA exclusion paragraphs found in the License Exception sections of by ECCNs 6A001, 6A002, 6A003, 6A004, 6A006, 6A008, or 6B008 to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) Technical data directly related to satellites and all other items described in USML Category XV are subject to the ITAR under USML Category XV(f). (2) Technical data directly related to laser systems, infrared imaging systems, and all other items described in USML Category XII are subject to the ITAR under USML Category XII(f). (3) Technical data directly related to read-out integrated circuits described in USML Categories XII(e) or XV(e)(3) is subject to the ITAR under USML Categories XII(f) or XV(f), respectively. (4) See also 6E992.

Related Definitions: N/A

Items:

The list of items controlled is contained in the ECCN heading.

* * * * *

7D004 “Source code” incorporating “development” “technology” specified by 7E004.a.2, a.3, a.5, a.6 or 7E004.b, for any of the following: (see List of Items Controlled).

License Requirements

Reason for Control: NS, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1.
AT applies to entire entry	AT Column 1.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: N/A

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit “software” in 7D004.a to .d and .g to any of the destinations listed in Country Groups A:5 and A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: See 7D103 and 7D994

Related Definitions: N/A

Items:

- a. Digital flight management systems for “total control of flight”;
- b. Integrated propulsion and flight control systems;
- c. “Fly-by-wire systems” or “fly-by-light systems”;
- d. Fault-tolerant or self-reconfiguring “active flight control systems”;
- e. [Reserved];
- f. Air data systems based on surface static data; *or*
- g. Three dimensional displays.

Note: 7D004 does not apply to “source code” associated with common computer elements and utilities (e.g., input signal acquisition, output signal transmission, computer “program” and data loading, built-in test, task scheduling mechanisms) not providing a specific flight control system function.

* * * * *

9B001 Manufacturing equipment, tooling or fixtures, as follows (See List of Items Controlled).

Reason for Control: NS, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1.
MT applies to equipment for engines controlled under 9A001 for MT reasons and for engines controlled under 9A101	MT column 1
AT applies to entire entry	AT Column 1.

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

LVS: \$5000, except N/A for MT

GBS: Yes, except N/A for MT

Special Conditions for STA

STA: License Exception STA may not be used to ship commodities in 9B001 to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: For “specially designed” production equipment of systems, sub-systems, “parts” and “components” controlled by 9A005 to 9A009, 9A011, 9A101, 9A105 to 9A109, 9A111, and 9A116 to 9A119 usable in “missiles” see 9B115. See also 9B991.

Related Definitions: N/A

Items:

a. Directional solidification or single crystal casting equipment designed for “superalloys”;
b. Casting tooling, “specially designed” for manufacturing gas turbine engine blades, vanes or “tip shrouds”, manufactured from refractory metals or ceramics, as follows:

b.1. Cores;

b.2. Shells (moulds);

b.3. Combined core and shell (mould) units;

c. Directional-solidification or single-crystal additive-manufacturing equipment designed for “superalloys”.

* * * * *

9D001 “Software”, not specified in 9D003 or 9D004, “specially designed” or modified for the “development” of equipment or “technology” controlled by ECCN 9A001 to 9A004, 9A012, 9A101 (except for items in 9A101.b that are “subject to the ITAR”, see 22 CFR part 121), 9A106.d. or .e, 9A110, or 9A120, 9B (except for ECCNs 9B604, 9B610, 9B619, 9B990, and 9B991), or ECCN 9E003.

License Requirements

Reason for Control: NS, MT, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to “software” for equipment controlled by 9A001 to 9A004, 9A012, 9B001 to 9B010, and technology controlled by 9E003	NS Column 1

Control(s)	Country chart (see Supp. No. 1 to part 738)
MT applies to “software” for equipment controlled by 9B116 for MT reasons	MT Column 1
AT applies to entire entry	AT Column 1

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: N/A

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit any software controlled by ECCN 9D001 that is (1)(a) “software” that is “specially designed” or modified for the “development” or “production” of components of engines controlled by ECCN 9A001 if such components incorporate any of the “technologies” controlled by 9E003.a.1, 9E003.a.2, 9E003.a.3, 9E003.a.4, 9E003.a.5, 9E003.c, 9E003.h, or 9E003.i (other than technology for fan or power turbines), ; or (b) equipment controlled by 9B001, or (2) “specially designed” or modified for the “development” of “technology” controlled by 9E003.a.1, 9E003.a.2, 9E003.a.3, 9E003.a.4, 9E003.a.5, 9E003.c, 9E003.h, or 9E003.i (other than technology for fan or power turbines).to any of the destinations listed in Country Group A:5 or A:6 (See Supplement No.1 to part 740 of the EAR). License Exception STA may not be used to ship or transmit “software” “specially designed” or modified for the “development” of equipment or “technology”, specified by ECCNs 9B001.b. or 9E003.a.1,

9E003.a.2 to a.5, 9E003.a.8, or 9E003.h to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: “Software” that is “required” for the “development” of items specified in ECCNs 9A005 to 9A011, 9A101.b (except for items that are subject to the EAR), 9A103 to 9A105, 9A106.a, .b, and .c, 9A107 to 9A109, 9A110 (for items that are “specially designed” for use in missile systems and subsystems), and 9A111 to 9A119 is “subject to the ITAR”.

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

9D002 “Software”, not specified in 9D003 or 9D004, “specially designed” or modified for the “production” of equipment controlled by ECCN 9A001 to 9A004, 9A012, 9A101 (except for items in 9A101.b that are “subject to the ITAR”, see 22 CFR part 121), 9A106.d or .e, 9A110, or 9A120, 9B (except for ECCNs 9B604, 9B610, 9B619, 9B990, and 9B991).

License Requirements

Reason for Control: NS, MT, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to “software” for equipment controlled by 9A001 to 9A004, 9A012, 9B001 to 9B010	NS Column 1
MT applies to “software” for equipment controlled by 9B116 for MT reasons	MT Column 1
AT applies to entire entry	AT Column 1

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: N/A.

Special Conditions for STA

STA: License Exception STA may not be used for 9D002 software that is “specially designed” or modified for the “production” of components of engines controlled by ECCN 9A001 if such components incorporate any of the “technologies” controlled by 9E003.a.1, 9E003.a.2, 9E003.a.3, 9E003.a.4, 9E003.a.5, 9E003.c, , 9E003.h or 9E003.i (other than technology for fan or power turbines); or equipment controlled by 9B001.

License Exception STA may not be used to ship or transmit “software” “specially designed” or modified for the “production” of equipment specified by 9B001.b to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: “Software” that is “required” for the “production” of items specified in ECCNs 9A005 to 9A011, 9A101.b (except for items that are subject to the EAR), 9A103 to 9A105, 9A106.a, .b, and .c, 9A107 to 9A109, 9A110 (for items that are “specially designed” for use in missile systems and subsystems), and 9A111 to 9A119 is “subject to the ITAR”.

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

* * * * *

9D004 Other “software” as follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, AT

Control(s)	Country chart (see Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1
AT applies to entire entry	AT Column 1

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: N/A.

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit any software controlled by ECCN 9D004.f or .g, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR). License Exception STA may not be used to ship or transmit software in 9D004.a and 9D004.c to any of the destinations listed in Country Group A:6 (See supplement no.1 to part 740 of the EAR)

List of Items Controlled

Related Controls: See also 9D104.

Related Definitions: N/A

Items: a. 2D or 3D viscous “software”, validated with wind tunnel or flight test data required for detailed engine flow modelling;

b. “Software” for testing aero gas turbine engines, assemblies, “parts” or “components”, having all of the following:

b.1. “Specially designed” for testing any of the following:

b.1.a. Aero gas turbine engines, assemblies or components, incorporating “technology” specified by 9E003.a, 9E003.h or 9E003.i; *or*

b.1.b. Multi-stage compressors providing either bypass or core flow, specially designed for aero gas turbine engines incorporating “technology” specified by 9E003.a or 9E003.h; *and*

b.2. “Specially designed” for all of the following:

b.2.a. Acquisition and processing of data, in real time; *and*

b.2.b. Feedback control of the test article or test conditions (e.g., temperature, pressure, flow rate) while the test is in progress;

Note: 9D004.b does not specify software for operation of the test facility or operator safety (e.g., overspeed shutdown, fire detection and suppression), or production, repair or maintenance acceptance-testing limited to determining if the item has been properly assembled or repaired.

c. “Software” “specially designed” to control directional solidification or single crystal material growth in equipment specified by 9B001.a or 9B001.c;

d. [Reserved]

e. “Software” “specially designed” or modified for the operation of items specified by 9A012;

f. “Software” “specially designed” to design the internal cooling passages of aero gas turbine engine blades, vanes and “tip shrouds”;

g. “Software” having all of the following:

g.1. “Specially designed” to predict aero thermal, aeromechanical and combustion conditions in aero gas turbine engines; *and*

g.2. Theoretical modeling predictions of the aero thermal, aeromechanical and combustion conditions, which have been validated with actual turbine engine (experimental or production) performance data.

* * * * *

9E001 “Technology” according to the General Technology Note for the “development” of equipment or “software”, controlled by 9A004, 9A012, 9B (except for ECCNs 9B604, 9B610, 9B619, 9B990 and 9B991), or ECCN 9D001 to 9D004, 9D101, or 9D104.

License Requirements

Reason for Control: NS, MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to “technology” for items controlled by 9A004, 9A012, 9B001 to 9B010, 9D001 to 9D004 for NS reasons	NS Column 1.
MT applies to “technology” for items controlled by 9A012, 9B001, 9B002, 9B003, 9B004, 9B005, 9B007, 9B104, 9B105, 9B106, 9B115, 9B116, 9B117, 9D001, 9D002, 9D003, or 9D004 for MT reasons	MT Column 1.
AT applies to entire entry	AT Column 1

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations

List Based License Exceptions (See Part 740 for a description of all license exceptions)

TSR: N/A

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit any” technology” in this entry for the “development” of equipment under 9B001, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no. 1 to part 740 of the EAR).

License Exception STA may not be used to ship or transmit any technology in this entry to any of the destinations listed in Country Group A:6 (See Supplement No. 1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) See also 9E101 and 1E002.f (for controls on “technology” for the repair of controlled structures, laminates or materials). (2) “Technology” required for the “development” of equipment described in ECCNs 9A005 to 9A011 or “software” described in ECCNs 9D103 and 9D105 is “subject to the ITAR.”

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading

9E002 “Technology” according to the General Technology Note for the “production” of “equipment” controlled by ECCN 9A004 or 9B (except for ECCNs 9B117, 9B604, 9B610, 9B619, 9B990, and 9B991).

License Requirements

Reason for Control: NS, MT, AT

Control(s)	Country Chart (See Supp. No. 1 to part 738)
NS applies to entire entry	NS Column 1.
MT applies to “technology” for equipment controlled by 9B001, 9B002, 9B003, 9B004, 9B005, 9B007, 9B104, 9B105, 9B106, 9B115 or 9B116 for MT reasons	MT Column 1.
AT applies to entire entry	AT Column 1

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations

List Based License Exceptions (See Part 740 for a description of all license exceptions)

TSR: N/A

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit any “technology” in this entry for the “production” of equipment under 9B001, to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

License Exception STA may not be used to ship or transmit any technology in this entry to any of the destinations listed in Country Group A:6 (See supplement no. 1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) See also 9E102. (2) See also 1E002.f for “technology” for the repair of controlled structures, laminates or materials. (3) “Technology” that is required for the “production” of equipment described in ECCNs 9A005 to 9A011 is “subject to the ITAR.”

Related Definitions: N/A

Items: The list of items controlled is contained in the ECCN heading.

9E003 Other “technology” as follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, SI, AT

<i>Control(s)</i>	<i>Country chart (see Supp. No. 1 to part 738)</i>
NS applies to entire entry	NS Column 1.
SI applies to 9E003.a.1 through a.8, .h, .i, and .l	See § 742.14 of the EAR for additional information.
AT applies to entire entry	AT Column 1.

Reporting Requirements

See § 743.1 of the EAR for reporting requirements for exports under License Exceptions, and Validated End-User authorizations.

List Based License Exceptions (See Part 740 for a Description of All License Exceptions)

TSR: N/A

Special Conditions for STA

STA: License Exception STA may not be used to ship or transmit any “technology” controlled by ECCN 9E003.a.1 to a.5, 9E003.c, 9E003.h, or 9E003.i (other than technology for fan or

power turbines), to any of the destinations listed in Country Group A:5 or A:6 (See supplement no.1 to part 740 of the EAR).

License Exception STA may not be used to ship or transmit any technology in 9E003.k to any of the destinations listed in Country Group A:6 (See Supplement No.1 to part 740 of the EAR).

List of Items Controlled

Related Controls: (1) Hot section “technology” specifically designed, modified, or equipped for military uses or purposes, or developed principally with U.S. Department of Defense funding, is “subject to the ITAR” (see 22 CFR parts 120 through 130). (2) “Technology” is subject to the EAR when actually applied to a commercial “aircraft” engine program. Exporters may seek to establish commercial application either on a case-by-case basis through submission of documentation demonstrating application to a commercial program in requesting an export license from the Department of Commerce in respect to a specific export, or in the case of use for broad categories of “aircraft,” engines, “parts” or “components,” a commodity jurisdiction determination from the Department of State.

Related Definitions: N/A

Items:

a. “Technology” “required” for the “development” or “production” of any of the following gas turbine engine “parts,” “components” or systems:

a.1. Gas turbine blades, vanes or “tip shrouds”, made from Directionally Solidified (DS) or Single Crystal (SC) alloys and having (in the 001 Miller Index Direction) a stress-rupture life exceeding 400 hours at 1,273 K (1,000 °C) at a stress of 200 MPa, based on the average property values;

Technical Note: For the purposes of 9E003.a.1, stress-rupture life testing is typically conducted on a test specimen.

a.2. Combustors having any of the following:

- a.2.a. 'Thermally decoupled liners' designed to operate at 'combustor exit temperature' exceeding 1,883 K (1,610 °C);
- a.2.b. Non-metallic liners;
- a.2.c. Non-metallic shells; *or*
- a.2.d. Liners designed to operate at 'combustor exit temperature' exceeding 1,883 K (1,610 °C) and having holes that meet the parameters specified by 9E003.c;
- a.2.e. Utilizing 'pressure gain combustion';

Technical Note: *For the purposes of 9E003.a.2.e, in 'pressure gain combustion' the bulk average stagnation pressure at the combustor outlet is greater than the bulk average stagnation pressure at the combustor inlet due primarily to the combustion process, when the engine is running in a "steady state mode" of operation.*

Note: *The "required" "technology" for holes in 9E003.a.2 is limited to the derivation of the geometry and location of the holes.*

Technical Notes:

1. *For the purposes of 9E003.a.2.a, 'thermally decoupled liners' are liners that feature at least a support structure designed to carry mechanical loads and a combustion facing structure designed to protect the support structure from the heat of combustion. The combustion facing structure and support structure have independent thermal displacement (mechanical displacement due to thermal load) with respect to one another, i.e., they are thermally decoupled.*
2. *For the purposes of 9E003.a.2.d, 'combustor exit temperature' is the bulk average gas path total (stagnation) temperature between the combustor exit plane and the leading edge of the turbine inlet guide vane (i.e., measured at engine station T40 as defined in SAE ARP 755A) when the engine is running in a "steady state mode" of operation at the certificated maximum continuous operating temperature.*

N.B.: *See 9E003.c for "technology" "required" for manufacturing cooling holes.*

a.3. “Parts” or “components,” that are any of the following:

a.3.a. Manufactured from organic “composite” materials designed to operate above 588 K (315 °C);

a.3.b. Manufactured from any of the following:

a.3.b.1. Metal “matrix” “composites” reinforced by any of the following:

a.3.b.1.a. Materials controlled by 1C007;

a.3.b.1.b. “Fibrous or filamentary materials” specified by 1C010; *or*

a.3.b.1.c. Aluminides specified by 1C002.a; *or*

a.3.b.2. Ceramic “matrix” “composites” specified by 1C007; *or*

a.3.c. Stators, vanes, blades, tip seals (shrouds), rotating blings, rotating blisks or 'splitter ducts', that are all of the following:

a.3.c.1. Not specified in 9E003.a.3.a;

a.3.c.2. Designed for compressors or fans; *and*

a.3.c.3. Manufactured from material controlled by 1C010.e with resins controlled by 1C008;

Technical Note: *For the purposes of 9E003.a.3.c, a 'splitter duct' performs the initial separation of the air-mass flow between the bypass and core sections of the engine.*

a.4. Uncooled turbine blades, vanes or “tip shrouds” designed to operate at a “gas path temperature” of 1,373 K (1,100 °C) or more;

a.5. Cooled turbine blades, vanes or “tip shrouds”, other than those described in 9E003.a.1, designed to operate at a 'gas path temperature' of 1,693 K (1,420 °C) or more;

Technical Note: *For the purposes of 9E003.a.5, “gas path temperature” is the bulk average gas path total (stagnation) temperature at the leading-edge plane of the turbine component when the engine is running in a “steady state mode” of operation at the certificated or specified maximum continuous operating temperature.*

a.6. Airfoil-to-disk blade combinations using solid state joining;

a.7. [Reserved]

a.8. 'Damage tolerant' gas turbine engine rotor “parts” or “components” using powder metallurgy materials controlled by 1C002.b; *or*

Technical Note: *For the purposes of 9E003.a.8, “damage tolerant” “parts” and “components” are designed using methodology and substantiation to predict and limit crack growth.*

a.9. [Reserved]

N.B.: *For “FADEC systems”, see 9E003.h.*

a.10. [Reserved]

N.B.: *For adjustable flow path geometry, see 9E003.i.*

a.11. 'Fan blades' having all of the following:

a.11.a. 20% or more of the total volume being one or more closed cavities containing vacuum or gas only; *and*

a.11.b. One or more closed cavities having a volume of 5 cm³ or larger;

Technical Note: *For the purposes of 9E003.a.11, a 'fan blade' is the aerofoil portion of the rotating stage or stages, which provide both compressor and bypass flow in a gas turbine engine.*

b. “Technology” “required” for the “development” or “production” of any of the following:

b.1. Wind tunnel aero-models equipped with non-intrusive sensors capable of transmitting data from the sensors to the data acquisition system; *or*

b.2. “Composite” propeller blades or prop-fans, capable of absorbing more than 2,000 kW at flight speeds exceeding Mach 0.55;

c. “Technology” “required” for manufacturing cooling holes, in gas turbine engine “parts” or “components” incorporating any of the “technologies” specified by 9E003.a.1, 9E003.a.2, or 9E003.a.5, and having any of the following:

c.1. Having all of the following:

c.1.a. Minimum “cross-sectional area” less than 0.45 mm²;

c.1.b. “Hole shape ratio” greater than 4.52; *and*

c.1.c. “Incidence angle” equal to or less than 25 °; *or*

c.2. Having all of the following:

c.2.a. Minimum “cross-sectional area” less than 0.12 mm²;

c.2.b. “Hole shape ratio” greater than 5.65; *and*

c.2.c. “Incidence angle” more than 25 °;

Note: 9E003.c does not apply to “technology” for manufacturing constant radius cylindrical holes that are straight through and enter and exit on the external surfaces of the component.

Technical Notes:

1. For the purposes of 9E003.c, the “cross-sectional area” is the area of the hole in the plane perpendicular to the hole axis.

2. For the purposes of 9E003.c, “hole shape ratio” is the nominal length of the axis of the hole divided by the square root of its minimum ‘cross-sectional area’.

3. For the purposes of 9E003.c, “incidence angle” is the acute angle measured between the plane tangential to the airfoil surface and the hole axis at the point where the hole axis enters the airfoil surface.

4. For the purposes of 9E003.c, methods for manufacturing holes include “laser” beam machining, water jet machining, Electro-Chemical Machining (ECM) or Electrical Discharge Machining (EDM).

d. “Technology” “required” for the “development” or “production” of helicopter power transfer systems or tilt rotor or tilt wing “aircraft” power transfer systems;

e. “Technology” for the “development” or “production” of reciprocating diesel engine ground vehicle propulsion systems having all of the following:

e.1. ‘Box volume’ of 1.2 m³ or less;

e.2. An overall power output of more than 750 kW based on 80/1269/EEC, ISO 2534 or national equivalents; *and*

e.3. Power density of more than 700 kW/m³ of 'box volume';

Technical Note: For the purposes of 9E003.e.1, “box volume” is the product of three perpendicular dimensions measured in the following way:

Length: The length of the crankshaft from front flange to flywheel face;

Width: The widest of any of the following:

a. The outside dimension from valve cover to valve cover;

b. The dimensions of the outside edges of the cylinder heads; or

c. The diameter of the flywheel housing;

Height: The largest of any of the following:

a. The dimension of the crankshaft center-line to the top plane of the valve cover (or cylinder head) plus twice the stroke; or

b. The diameter of the flywheel housing.

f. “Technology” “required” for the “production” of “specially designed” “parts” or “components” for high output diesel engines, as follows:

f.1. “Technology” “required” for the “production” of engine systems having all of the following “parts” and “components” employing ceramics materials controlled by 1C007:

f.1.a. Cylinder liners;

f.1.b. Pistons;

f.1.c. Cylinder heads; *and*

f.1.d. One or more other “part” or “component” (including exhaust ports, turbochargers, valve guides, valve assemblies or insulated fuel injectors);

f.2. “Technology” “required” for the “production” of turbocharger systems with single-stage compressors and having all of the following:

f.2.a. Operating at pressure ratios of 4:1 or higher;

f.2.b. Mass flow in the range from 30 to 130 kg per minute; *and*

f.2.c. Variable flow area capability within the compressor or turbine sections;

f.3. “Technology” “required” for the “production” of fuel injection systems with a “specially designed” multifuel (*e.g.*, diesel or jet fuel) capability covering a viscosity range from diesel fuel (2.5 cSt at 310.8 K (37.8 °C)) down to gasoline fuel (0.5 cSt at 310.8 K (37.8 °C)) and having all of the following:

f.3.a. Injection amount in excess of 230 mm³ per injection per cylinder; *and*

f.3.b. Electronic control features “specially designed” for switching governor characteristics automatically depending on fuel property to provide the same torque characteristics by using the appropriate sensors;

g. “Technology” “required” for the “development” or “production” of 'high output diesel engines' for solid, gas phase or liquid film (or combinations thereof) cylinder wall lubrication and permitting operation to temperatures exceeding 723 K (450 °C), measured on the cylinder wall at the top limit of travel of the top ring of the piston;

Technical Note: For the purposes of 9E003.g, “high output diesel engines” are diesel engines with a specified brake mean effective pressure of 1.8 MPa or more at a speed of 2,300 r.p.m., provided the rated speed is 2,300 r.p.m. or more.

h. “Technology” for gas turbine engine “FADEC systems” as follows:

h.1. “Development” “technology” for deriving the functional requirements for the “parts” or “components” necessary for the “FADEC system” to regulate engine thrust or shaft power (*e.g.*, feedback sensor time constants and accuracies, fuel valve slew rate);

h.2. “Development” or “production” “technology” for control and diagnostic “parts” or “components” unique to the “FADEC system” and used to regulate engine thrust or shaft power;

h.3. “Development” “technology” for the control law algorithms, including “source code”, unique to the “FADEC system” and used to regulate engine thrust or shaft power;

***Note:** 9E003.h does not apply to technology related to engine- “aircraft” integration required by civil aviation authorities of one or more Wassenaar Arrangement Participating States (See Supplement No. 1 to part 743 of the EAR) to be published for general airline use e.g., installation manuals, operating instructions, instructions for continued airworthiness) or interface functions e.g. input/output processing, airframe thrust or shaft power demand).*

i. “Technology” for adjustable flow path systems designed to maintain engine stability for gas generator turbines, fan or power turbines, or propelling nozzles, as follows:

i.1. “Development” “technology” for deriving the functional requirements for the “parts” or “components” that maintain engine stability;

i.2. “Development” or “production” “technology” for “parts” or “components” unique to the adjustable flow path system and that maintain engine stability;

i.3. “Development” “technology” for the control law algorithms, including “source code”, unique to the adjustable flow path system and that maintain engine stability;

***Note:** 9E003.i does not apply to “technology” for any of the following:*

a. Inlet guide vanes;

b. Variable pitch fans or prop-fans;

c. Variable compressor vanes;

d. Compressor bleed valves; or

e. Adjustable flow path geometry for reverse thrust.

j. “Technology” “required” for the “development” of wing-folding systems designed for fixed-wing “aircraft” powered by gas turbine engines.

***N.B.:** For “technology” “required” for the “development” of wing-folding systems designed for fixed-wing “aircraft” specified in USML Category VIII (a), see USML Category VIII (i).*

k. “Technology”, not specified in 9E003.a, 9E003.h, or 9E003.i, “required” for the “development” of any of the following components or systems, “specially designed” for aero gas turbine engines to enable “aircraft” to cruise at Mach 1 or greater for more than 30 minutes:

- k.1. Propulsion inlet systems;
- k.2. Propulsion exhaust systems;
- k.3. ‘Reheat systems’;
- k.4. ‘Active thermal management systems’ to condition fluids used to lubricate or cool ‘engine rotor supports’;
- k.5. Oil-free 'engine rotor supports'; or
- k.6. Systems to remove heat from 'compression system' core gas path flow.

Technical Notes: For the purposes of 9E003.k:

- 1. Propulsion inlet systems include core flow pre-coolers.
- 2. 'Reheat systems' provide additional thrust by combusting fuel in exhaust and/or bypass flow downstream of the last turbomachinery stage. 'Reheat systems' are also referred to as afterburners.
- 3. ‘Active thermal management systems’ employ methods other than passive oil-to-air cooling or oil-to-fuel cooling, such as vapor cycle systems.
- 4. ‘Compression system’ is any stage or combination of stages between the engine inlet face and the combustor that increases gas path pressure through mechanical work.
- 5. An ‘engine rotor support’ is the bearing supporting the main engine shaft that drives the compression system or turbine rotors.

N.B. 1 See 9E003.h for engine control technology.

N.B. 2 See 9E003.i for adjustable flow path systems technology.

l. “Technology” not otherwise controlled in 9E003.a.1 through a.8, a.10, and .h and used in the “development”, “production”, or overhaul of hot section “parts” or “components” of civil derivatives of military engines controlled on the U.S. Munitions List.

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Thea D. Rozman Kendler,

Assistant Secretary for Export Administration.

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